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ВОПРОСЫ ЭКОНОМИКИ

English Translation of the U.S.S.R. Monthly Journal VOPROSY EKONOMIKI

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Certain Problems of the Development of the Political Economy of Socialism at Its Present Stage

Brotherly Collaboration and Mutual Assistance on the Part of the Socialist Countries

The Relationship Between the Rates of Development of Industry and Agriculture in the USSR

Modernization of Equipment — An Important Objective of the Seven-Year Plan

Problems of Material Incentives in Government-Owned Enterprises

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Specialization in Agriculture

The Structure of a Course in Political Economy

Socialist Property and Commodity Production Under Socialism

The Need for Commodity Production Under Socialism

Criticism of Modern Bourgeois, Reformist and Revisionist Economic Theories

Money, Credit and Banks Under Socialism

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L. Gatorovsky

Certain Problems of the Development of the Political Economy of Socialism at Its Present Stage

The role of the science of economics becomes greatly increased as our country enters the period of all-out upbuilding of a communist society, and the demands upon that science are increased. This is natural. The present period is characterized by enormous qualitative advances in the social, economic, technological, and industrial fields, scientific and engineering progress moving at a headlong pace, and an intensive process of improvement of the socialist relationships of production, which constitute the necessary conditions for the accelerated growth of the forces of production. Within 15 years we will have established the basis for communism in material technology. The USSR will become the leading industrial country in the world, will surpass the United States in the productivity of social labor, in the production of goods per head of population, and will attain the highest living standard in the world. The scale of production and capital construction will increase tremendously. Three trillion rubles represent the total capital investments in the national economy during the seven-year period — as much as had previously been invested during the entire period of rule of the Soviets. Moreover, the problem of gaining time in the peaceful economic competition between socialism and capitalism, which will create real possibilities of eliminating war as a means of solution of international problems, is today posed with particular sharpness. All this demands immediate consideration of problems of maximum economy of social labor, rational utilization of resources, attainment of the highest economic efficiency in production expenditures, optimum proportions in the national economy, providing not only for accelerated rates of increase in production while the level itself is high, but also assuring that the development of the productive forces will be all-sided, and that both industry, agriculture, accumulation, and consumption will improve rapidly. Suffice it to say that one half the total government capital investments during the seven-year period has to be covered by cutting the cost of production in industry, in construction, in transportation, and in the state farms. Reduction in costs of production in the collective farms plays an exceptionally important role in the period ahead. The vital importance under today's scales, levels, rates and changes in the makeup of production played by scientifically-founded, optimum economic solutions, and the manner in which they can assist in utilizing the advantages of the socialist system to the full, and in mobilizing the internal reserves of the national economy, is clear. We know to what degree the possibility of ending the backwardness in the scientific work of economists relative to the triumphs achieved in the practice of the upbuilding of communism has matured.

Today, when the development of the Leninist principle of democratic centralism in administration of the economy is resulting in an increase in and expansion of local initiative, and in the creative activity of the working people, and when

the role of the economic levers, such as planning, material incentives, and accounting is increasing and when a sharp upswing in all branches of the economy is occurring on the road to communism — under these conditions, the responsibility of the science of economics, and the possibilities for practical utilization of its results, become greater and greater.

The Communist Party, guiding the upbuilding of communism in our country, bases itself upon a creative, scientific analysis of the processes of social development, and advances Marxist-Leninist theory, including the science of economics. A striking example of this is the 21st Congress of the Party, its resolutions, the report of Comrade N. S. Khrushchev, founded on the unity of theory and practice. The Congress advanced tasks for solution by economists the object of which is to bring about a serious improvement in all their work.

"Before the scientists in the social sciences, and particularly before the science of economics," Comrade N. S. Khrushchev stated in his report to the 21st Congress of the Communist Party of the Soviet Union, "there stands the problem of creative generalization and bold theoretical solution of new problems advanced by life. An all-round analysis of the most important processes occurring in the capitalist world is necessary, as is an exposure of capitalist ideology, and a struggle for the purity of Marxist-Leninist theory." The report of Comrade N. S. Khrushchev and the resolutions of the 21st Congress of the Communist Party of the Soviet Union emphasize the need for a profound study, particularly by the science of economics, of the laws of transition to communism.

The entry of the Soviet Union into the period of all-out development of a communist society determines the essential content of investigations of the political economy of socialism in our country. The most important factor in its creative development as an advanced economic science consists of analysis of the gigantic and exceedingly complex process of transition of the socialist economy to a communist economy that is now in progress. We speak primarily of investigations of those economic phenomena which signify the birth, within the socialist method of production, of the prerequisites and elements of communism, and their constant growth and reinforcement.

Inasmuch as socialism and communism are two phases (a lower and a higher) of the same social economic formation, and both are based upon social ownership of the means of production, the transition to communism cannot be a process separate from the development of socialism itself. The transition from capitalism to socialism is another matter, as the foundations of these two societies are in contradiction to each other. This process cannot be based upon the laws of the capitalist society preceding socialism, but begins with the overthrow of the domination of capital. With

the upbuilding of a socialist society, when socialism develops on its own foundation, the ever greater improvement of its productive forces and production relationships, constitutes the gradual transition to communism. This is a planned process based on the conscious utilization of the economic laws of socialism. As laws of the development of socialism, they are at the same time laws of the birth and creation of communism. Consequently, the political economy of socialism studies the laws of the foundation and development of socialist society, and its transformation into a communist society. Presently, study of the concrete forms of utilization of the economic laws of socialism for the purpose of all-sided stimulation and reinforcement of the new, progressive processes of development of the production relationships on the path of communism, the celebrated construction of its foundation in material technology, and the most rapid achievement of a level of productivity on the part of social labor that will assure an abundance of consumer goods takes on ever increasing importance.

To this day, some economists hold the view that the objective of political economy of socialism consists essentially of determining general definitions of economic laws and categories. The most important thing, in their opinion, is to establish a "list" and "hierarchy" of laws, the boundaries of their spheres of activity, and to determine what each law "demands" within its "area of competence." When this approach is applied no room remains for further development of the political economy of socialism; all that is necessary is that a complete scheme be set up once and for all containing ideal formulations of laws and categories. It is clear that such notions have nothing to do with the genuine objective of the political economy of socialism. It regards the objective economic laws of socialism not as mystical, fatalistically operative forces, but studies these laws with the purpose of practical application thereof by society. That is why it investigates not only the essence and the fundamental characteristics of these laws, but the concrete conditions and mechanism of their operation, the objectively necessary forms and methods, and also the results of utilization of these laws. This, it is understood, does not at all mean that political economy becomes transformed into economic policy or is to any degree confused therewith, and that its objective does not include description of measures taken in the field of economic policy. However, it develops the theoretical foundations for economic policy, studies those significant and profound changes in the economy which occur under the planned influence of the government, and investigates the fundamental economic processes constituting the cause and consequence of this influence. The specific conditions, forms and results of utilization of economic laws undergo gradual change with the development of the socialist economy toward communism. This is a highly dynamic process. And therefore, the very development of the political economy of socialism is also dynamic. Reflecting a rapidly developing life, it sheds light upon this process and upon its further perspectives.

In our society, the relationships of production correspond to the character of the productive forces. But, in the process of the upbuilding of communism, the creation of its foundation in material technology, and the rapid development of the forces of production, particular specific forms of our production relationships lag behind this development, become outdated, and cease to correspond to the new level of the productive forces that has been attained, thus coming into contradiction therewith. The Communist Party, the Soviet government, and our society as a whole work to overcome these contradictions in planned fashion, and to bring lagging economic forms into correspondence with the level

of the productive forces. This is the manner in which, under our conditions, conscious utilization of the law of correspondence between production relationships and the nature of the productive forces is realized. And thereby, improvement of socialist relationships of production occurs on the basis of the rise in the productive forces, and brings these relationships ever closer to those of a communist nature.

In descriptions of the transition of socialist relationships of production to communist, this entire problem is sometimes reduced, for all practical purposes, merely to elevating collective farm property to a level of general public property. But, in the first place, property, being the fundamental and decisive characteristic of the relationship of production, nevertheless does not completely exhaust the subject. Therefore, other changes must not be left out of consideration, changes in the field of production, distribution, exchange, and consumption, intimately interrelated with the development of property and founded on the development thereof. In the second place, on the road to communism, general public property itself undergoes development on the basis of the development of the forces of production and in connection with the changes in the nature of social labor, the wiping out of social differences, etc. Therefore, changes in the leading, government sector of social production play a decisive role in the entire process of the communist transformation of the country, and open the road to a rapid upsurge of productivity of social labor as a whole.

The process of improvement of socialist relationships of production both in the governmental and the collective farm sectors shows significant changes in the nature of social labor, a gradual growing over of socialist labor into communist labor, which would be a prime necessity of life for all members of society. This is a complex and multi-faceted process, embracing the sphere of forces of production and relationships of production, and demanding the most profound organizational transformations in the fields of technology, economics, and the training of personnel. It is directly related to the gradual creation of an abundance of material and cultural goods, and to the attainment of an ever higher, communist consciousness on the part of the masses, with a reduction of the work day and an easing of the conditions of labor, and with a gradual transition to a new, communist division of labor, in which separation into workers of mental and physical labor, into workingmen and peasants, would be unknown. The makeup of the working force by trades will undergo a fundamental change, and the old, narrow professions will retreat farther and farther into the past. They will be replaced by new professions on the part of human beings of many-sided development, who have had broad training, which will significantly facilitate the transition from one kind of job to another.

If the enormous upsurge of culture, of general and technical education, and the development of polytechnical training render possible an ever greater approximation of the cultural and technical level of workers of physical labor to that of workers of mental labor, the development of all-round mechanization, automation, general electrification, etc., will result in the absolute necessity of attainment of the skills of engineers and technicians by the working class becoming more and more manifest. The growth of the cultural and technical level of the working people is organically connected to improvement of the socialist relations of production, as it leads to a gradual erasure of the boundaries between workers and peasants on the one hand, and intellectuals on the other. And in this connection, it is impossible not to see the important principle of instances such as the following. At the Leningrad "Red Metallist Plant," 50%

of the workers presently have a 7-year or complete high school education (general and technical). The seven-year plan of this plant provides that by 1965 about three quarters of the workers (73%) will be high school graduates.

The process of elimination of the existing differences between mental and physical labor involves not only the new technology, and a fundamental transformation of the system of personnel training, but also the development of such new forms of competition as communist labor brigades, in which the processes of creation of a material and technological basis for communism, and the development of the new man of communist society, will be reflected ever more completely. The obligations undertaken by these brigades are directed toward better grasp of introduction, development and efficient utilization of modern technology, and intensive improvement of their skills, and of the level of technical and general education. This accelerates the process of elimination of these existing differences between mental and physical labor. Here, there is an entire complex of obligations, embracing production, labor, civic activity, household habits, studies, and based upon the communist principle of priority to general public interests, to a combination of high moral qualities in everyday life with an advanced role in production, with a struggle for the latest technology, and for a high culture of work.

Socialist competition clearly manifests the indissoluble connection and organic correlation of two essential factors - that of moral upbringing and that of material incentive. To counterpose the two would be an error, based on denigration of the socialist character of distribution in accordance with labor, a principle organically inherent in socialism, and constituting a vital necessity of its development, manifesting the power of labor. Realization of this principle, directed toward bringing personal interests into the mainstream of the interests of society as a whole, therefore serves a function of education as well. It strengthens stimuli to improvement of the cultural and technical level of the working people, to growth of labor productivity, leading to an abundance of material and cultural goods. This creates the prerequisites for a future transition to the principle of distribution in accordance with need. This transition will take place not only as the result of an abundance of material goods, but on the basis of an inculcation of a communist attitude toward labor, that is of an internal desire on the part of each to labor to the best of his abilities, regardless of the quantity of material goods he obtains. But as long as these conditions do not exist, the strengthening of material incentives as a result of social production, and the consistent application of the principle of distribution in accordance with labor facilitates the development of socialist relationships of production on the road to communism.

This is accompanied by a gradual reduction of the difference in income between high-paid and low-paid workers. According to the seven-year plan, the difference in the incomes of low-paid, medium-paid and high-paid groups will undergo a significant reduction. While the average monetary wage of workers and office workers will rise 26% from 1959 to 1965, that of the low-paid workers will rise approximately by 70%. While the real incomes of workers and office workers (calculated per worker) will rise by an average of 40% during this period, the incomes of the low-paid will virtually double. This is an important factor in improving socialist distribution. What is the cause of the reduction in differences in income? In the first place, the fact that the principle of distribution in accordance with labor, which is directed against equalitarianism, at the same time requires elimination of exceptional differences in payment that do not correspond to actual outlays in labor. In the second place,

the difference in the level of skills on the part of working people is diminishing. In the third place, as we advance to communism, the difference in incomes will be reduced, a fact that is related to a substantial degree to the development of free social forms of satisfaction of one's needs.

In socialist society, the great bulk of material and cultural goods are distributed in accordance with labor. But even under the conditions of socialism, a substantial and ever-increasing portion of these goods is distributed among the members of society without charge, that is, independent of their contribution of labor to social production. We have reference to education, the public health services, social insurance, social security, the development of the system of children's institutions, etc. Under the seven-year plan, the government's expenditures for these purposes will rise by 70%, which is a higher rate than the increase in funds assigned to individual payments to labor. To this we may add the gigantic increase in government appropriations for housing. Thus, Marx's assertion to the effect that the share of capital going to social satisfaction of needs will reveal a consistent increase as socialism develops.

The rapid development of social forms of satisfaction of the worker's needs (the increase in the expenditures of society upon social and cultural needs, improvement in the housing of the population, expansion of everyday services, of public catering arrangements, etc.) is one of the significant characteristics of the improvement of socialist relationships of production in the field of distribution. In accordance with our progress toward communism, these forms, which are essential communist methods of increasing the well-being of the people, will play an ever-greater role. Connected therewith is a gradual replacement of household work by social forms of services, which is of great importance to the population as a whole, and particularly to women. V. I. Lenin repeatedly emphasized that the transition to communism is impossible without a true liberation of women from household work. This is a very great problem directly related to the improvement of socialist relationships of production. The development of social forms of satisfaction of needs also has great educational value, making for the development of the new man of communist society. An ever-increasing role in the communist upbringing of the rising generation will be played by public children's institutions, and particularly by boarding schools.

The improvement of socialist relationships of production is also expressed in the further socialization of production and labor, and in the development of concentration, specialization, cooperation and combination of production. These processes, representing an ever-greater improvement in relationships of production among enterprises, branches, and districts, stimulate improvement in the system of administration of production. With the reorganization of the management of industry and construction, we have eliminated the departmental barriers inhibiting the growth of the economy.

In the USSR, the Leninist principle of democratic centralism in administration of the economy is being consistently realized. It is built on ever more democratic foundations, and this is a necessary index and condition of progress to communism. Local initiative, the creative activity of the masses, and the role of the trade unions show a continuous increase. The processes do not pertain only to the sphere of the political superstructure, nor are they limited to the field of administration and management as such. They also signify a corresponding improvement of the socialist relationships of production, inasmuch as the matter here has to do with creation of conditions for an ever more active participation by the masses of the working people in

the direct management of economic life, including that of each individual enterprise. This is an important factor in the improvement of the relationships of production between socialist society and its members. The following data will serve as examples of increase in the creative activity of the working people. In 1958 alone, rationalizers and inventors contributed over 2,700,000 suggestions. The introduction of proposals for rationalization gave the government about nine billion rubles of savings in that year. About 7 million workers and office workers currently participate in permanent production conferences.

Relationships of production in government enterprises represent a higher and more mature form of national socialization of production relative to the cooperative and group form of socialist property. Consequently, the processes of development on the road to communism of government (public) property and of cooperative-collective farm property do have differences, although they have much in common. As progress toward communism occurs, there will be an ever increasing approximation of collective farm and cooperative property to government property, and, in the future, a complete merger therewith into a single general public communist property. Therefore, along with the changes that will occur in common both in the government and the collective farm sectors, the collective farm sector will have to undergo a number of special transformations, not necessarily in the government sector.

The improvement of socialist relationships of production in the countryside, the development of the collective farm form of production on the road to communism, are indissolubly interrelated with the process of elimination of the existing differences between town and country, and with the erasure of the boundaries of the working class and peasantry. This process, and the elimination of the existing differences between mental and physical labor, embrace the area of productive forces, relationships of production and culture, the sphere of production, distribution, and consumption of material and cultural goods.

Significant changes in the forces of production, a gradual transformation of agricultural labor into a variety of industrial labor by means of complex mechanization, electrification, and the introduction of chemistry into agriculture, significant development of automation, etc., will be of decisive significance here. On the basis of modern engineering and technology, the introduction of advanced methods of organization of production, the attainment of modern science, of rational systems of agriculture with scientifically-founded crop rotations, will provide a high level of labor productivity, a significant reduction in costs of production, and a solid stability to the constant rise in agriculture, plus a maximum limitation of the influence of the arbitrary forces of nature thereon. Thus, the concept of the classical Marxist writers to the effect that agriculture will function on a scientific basis, as will large-scale industry, will be realized to the full. The development of industrial methods of production, and the changes in the structure of agriculture (for example, the increase in the ratio of cattle raising to the whole), the expansion of construction, and the industrial processing of agricultural products in the countryside will lead to a pronounced reduction in the seasonal nature of the utilization of labor resources.

Connected with all this is a further concentration of agricultural production in the collective farms on the basis of expanded reproduction, of continuous and rapid increase in the average production capital per collective farm, and in the volume of the means of production per individual collective farmer. This is an important aspect of the process of bringing the nature of collective farms, as concerns

production and technology, in line with that of government enterprises, including industrial enterprises.

Concentration is intimately related with development of the socialist division of labor in the countryside, and with intensive specialization of agricultural production. It goes without saying that what we are thinking of here is not an extreme, one-sided specialization, which would violate the necessary coordination of the various branches, but the presence of a clearly-defined economic profile, permitting the most effective utilization of the natural and economic conditions of the given collective farm, district, or zone. The consistent policy of specialization of agriculture now being pursued will, in the future, allow purchase of each type of agricultural product where its production is cheapest.

The concentration and specialization of agricultural production induced by increase in the forces of production will, in turn, accelerate this increase. Being necessary factors in the approximation of agricultural labor to industrial, they make for improved utilization of the means of production and the working force, and a reduction in costs of production. Concentration, subcontracting and specialization signifying the development of socialization of labor, constitute an important aspect of the improvement of socialist relationships of production in the collective farms, and of approximation of the collective-farm form of production to the general public form.

The development of the productive forces in the collective farms finds expression in increase in their indivisible capital, constituting the foundation of the reinforcement of the public economy of the collective farms, and the rise in the living standard of the collective farmers. The increase in the indivisible capital (totalling 102 billion rubles at the end of 1957, and to attain about 160 billion rubles at the end of 1959), is a basic index of the increase in social wealth, the economic strength of the collective farms, and is related to the rising scale of expanded reproduction in the collective farm sector. The volume of capital investments of the collective farms in 1958 was almost three times as great as in 1953, and reached 34 billion rubles. In the great majority of collective farms, the process of acquiring machine equipment from the machine and tractor stations has been completed. This means, that along with a quantitative increase in the indivisible capital, significant qualitative changes are occurring in their structure as far as the actual types of property are concerned. This reflects a sharp rise in the proportion of modern, advanced equipment therein. The rise and strengthening of the collective farms on their own basis in material technology, and the ever-increasing utilization of the indivisible capital as a source of social satisfaction of the cultural and livelihood needs of the collective farmers constitute important qualitative factors.

The growth in and qualitative improvement of the composition of the indivisible capital is of enormous significance for improvement of socialist relationships of production in the collective farms. In structure and social character, the indivisible capital will increasingly approximate general public capital.

The rising role of the indivisible capital requires some increase in the percentage of collective farm income set aside to expand as capital. In 1953, the average percentage set aside for this purpose, measured against the monetary income of the collective farms, was 17.5 (8,700,000,000 rubles). In 1958, it was about 21% (28.5 billion rubles), and it is proposed that by 1959 it attain 22.4% (in absolute figures 33.2 billion rubles). This process of increase will continue with a simultaneous rise in the individual incomes of the collective farmers, and assurance of the principle

of personal material incentive. As the total sum of collective farm income shows rapid increase, along with the portion going to personal consumption by the collective farmers, the portion of the income going into the indivisible funds will increase both absolutely and relatively. This stems from the principles of expanded reproduction and accumulation in the collective farms. The percentage set aside for capital expansion in certain collective farms having large incomes must be recognized to be entirely too low.

The rise in the productive forces, the improvement in the level of equipment and the expansion in the scale of collective farm production are calling into life new economic forms, which are increasingly justifying their existence. These include various types of combinations among collective farms, as well as a unique kind of unification and merger of collective farm property with government property and general public property (for example, the joint construction and utilization of power plants, etc.). These new rapidly developing economic forms (at the beginning of 1959, inter-collective farm construction organizations in the Ukraine, for example, already embraced almost 70% of the collective farms, and there were 1,200 inter-collective farm construction organizations in the country) permit a substantially more effective utilization of the rising productive forces, and acceleration of the processes of transformation of collective farm labor into a variety of industrial labor. By concentrating funds and forces, they make it possible to solve a number of major technological and economic problems that are insoluble, or the solution of which is unprofitable, by the forces and funds available to the individual collective farm — in such fields as electrification and mechanization of production, drainage, construction, industrial processing of agricultural produce, the development of social forms of satisfaction of the needs of the collective farmers for social purposes, consumer services, and cultural needs. This raises collective farm property to a new higher stage, expands its bounds, and approximates to general public property.

An important side of the improvement of socialist relationships of production in the countryside, of increase in the level of socialization of collective farm-and-cooperative property, of approximation thereof to general public property, is the economic process of gradual attrition of the personal private plot of the collective farmer. This is based on the fact that as the publicly-owned economy of the collective farm grows and becomes stronger, the personal economy, which is of low productivity, will become economically ever less profitable for the collective farmers. The growing social economy will increasingly embrace various branches of agriculture, and will satisfy to an ever higher degree those needs of the collective farmers that are currently satisfied from their personal plots — the need for livestock produce, vegetables, fruits, etc. The growth in the publicly-owned economy of the collective farms will lead to an ever greater rise in the level of income derived therefrom by the collective farmers, and to a reduction in the share and significance of their income from their private plots, which thus will be gradually out-lived. A significant role in this direction is played by the reduction in the high prices charged on the collective farm markets, which will result from the rise in the volume of agricultural produce. The high level of market prices has artificially raised the income from the private plots.

In this fashion, the development of the productive forces of the collective farms will lead, through the medium of improvement of social property, of the public production of the collective farms, to important changes in the distributive

sphere, and later, in turn, will have a reciprocal effect upon the development of public property.

As a result of the system of measures carried out in recent years to strengthen the collective farms, the size of their incomes has sharply increased. The sum of payments in kind and money for labor-day units from 1952 to 1958 has almost doubled. This has been accompanied by a significant reduction in the excessive difference in payments to labor between weak and strong collective farms. This is, to a considerable degree, the result of elimination of compulsory deliveries, and of transition to purchase of agricultural products in accordance with uniform zonal prices. The process of reducing this difference — accompanied by a consistent realization of the principle of distribution in accordance with labor — will continue as the economic level of the backward farms is raised to that of the advanced ones. The following data offer convincing testimony to the exceptionally rapid growth in the monetary incomes of the collective farms. According to the data of the Central Statistical Office, the monetary incomes of the collective farms in 1958 were more than 130 billion rubles, as against 42.8 billion rubles in 1952, meaning that they increased three-fold in six years. The monetary form of payment to labor came to predominate, and constituted 56% of the whole in 1957.

In past years, the portion of collective farm production offered for sale, and the income level resulting therefrom, were, relatively, considerably lower than today. There were very great fluctuations in income, and consequently in payments to labor, and this inhibited the guaranteeing of monetary income. Now, when the collective farms have strengthened, the conditions for an ever-greater dissemination of guaranteed monetary payment to labor without the need of the labor-day unit have matured. Today, when the level of income is rising rapidly, and fluctuations in the volume of production and income are being eliminated to an ever increasing degree, the basis for the creation of large liquid reserve capital in the collective farm has expanded. As a result, many collective farms are in a position to make regular advances to the collective farm members, and to guarantee payment at a specific level. The conditions for accounting of and quota-setting for labor in monetary form, without the use of a labor-day unit as intermediary, are developing. The practice of monthly granting of advances and of guaranteed payment to labor on the collective farms is becoming ever more widely disseminated. Today, hundreds of collective farms in the Ukraine have converted to guaranteed payment, and this is done to a considerable degree without the use of labor-day units. The number of such collective farms in the Ukraine is rapidly growing, as is the case in the other republics. The transition to monetary guaranteed payment to labor in the collective farms, with approximation of this payment to the level of the wages of state farm workers, will markedly raise the authority of the public economy in the eyes of the collective farmers, and will reinforce the prerequisites for the attrition of the personal plots, will increase stimuli to growth in labor productivity, and will expand the basis for cost accounting in the collective farms.

The Communist Party has solved the maturing problems of the development of the collective farm system boldly and in creative fashion, and has scored remarkable triumphs in this respect. In this connection, dogmas which have failed to withstand the test of time have been overcome. These dogmas elevated temporary circumstances (albeit they were essential in specific conditions), into eternal, non-discardable principles of the collective farm system. One of these dogmas held that property ownership by the collective

farms would allegedly always exist only in the fields of produce, and not in that of means of production, and that the means of production utilized in the collective farms would, as a matter of necessity, always belong to the government. However, this does not at all essentially flow from the nature of the collective farms, as has convincingly been demonstrated in practice. The machine and tractor stations played a necessary and outstanding role in certain periods, but the successful reorganization they have undergone in the present stage, and the sale of their machine equipment to the collective farms represent a most important link in the direction of further strengthening of the social economies of the collective farms, and expansion of their basis in production. Today, in changed conditions, they serve as a powerful factor for improvement of socialist relationships of production in the countryside.

Other dogmas have also been overthrown, for example, the one to the effect that the presence of compulsory deliveries, as a kind of tax, is eternally associated with the collective farm system, or that relationships expressed in kind, that payment for labor in kind, that the labor-day unit as the standard of labor and measure of consumption are organically inherent in any collective farm, etc., have also been rejected. Compulsory deliveries, and the labor-day unit, and the high proportion of relationships expressed in kind were all called forth by objective conditions and were the children of necessity. At given stages in history they played an important role, but they are by no means "eternal" characteristics of the collective farm system.

A number of other erroneous conclusions were results of a wrong approach to commodity and monetary relationships.

For example, it was asserted that the purchase prices for agricultural products had no essential relationship to their cost or value, and that unlike government-owned enterprises, the categories of cost and cost-accounting were in general inapplicable to the collective farms. Efforts were made to elevate to the status of an "eternal law" the exceedingly low level of purchase prices and the violations of a principle of material incentives to the collective farmers and the collective farms, etc. All this was not infrequently ascribed to the "specific nature" of the collective farms, and the difference between collective farms and government enterprises were differences artificially inflated.

Elimination of the errors and shortcomings permitted in this respect, restoration of the principle of material incentive, the increase in purchase prices, the repeal of compulsory deliveries, the fundamental changes in the system of procurement, the expansion of commodity and monetary relationships, the extension of cost accounting, and the development of new forms of payment to labor more nearly similar to those of government enterprises, etc., represent a further reinforcement and development of the collective farm system, and a further approximation of the collective farm form of economy to the general public form.

As we progress toward communism, the village will come to approximate the town increasingly, in conditions of production and of culture in everyday life, and in the living standard of the population; and the collective-farm sector of the economy will come to approximate the government-owned sector. It is therefore natural that in the collective farms, the rates of increase in productivity of labor, income, and improvement in cultural and living conditions, must be higher than in government-owned enterprises. According to the seven-year plan, labor productivity in the collective farms is to rise approximately 100%, while the rise in the state farms is to be 60% to 65%, and that in industry 45% to 50% (per worker). The average incomes of the collective farmers, as they approximate the average

incomes of workers, will thereby also rise relatively more rapidly, and this will result in a reduction in the difference between the income levels of the two. Currently, there is still a significant difference between them in terms of level of consumption of commodities other than foodstuffs, and in terms of cultural and service industries. This difference will become narrower and narrower. The problems of pensions and social assistance in the collective farms are now on the order of business for solution.

A study of problems of the world socialist system of economy takes on a special and ever increasing role in the political economy of socialism at the present time. The planned international socialist division of labor has already become one of the most important factors in the economic development of any socialist country. The further elaboration of the principles, methods and forms of this division of labor is an important undertaking for the economists of the countries of the socialist camp. Of great importance in this connection are joint efforts in elaborating a uniform method of determining economic indices for all these countries. This is necessary for comparison of the levels obtained, and for determination of uniform economic criteria for evaluating economic results (uniform indices of national income, production, labor productivity, cost, living standard, the purchasing power of the hard currency, etc.).

The increasingly close economic ties among the socialist countries, and the rising coordination of their economic plans on the basis of specialization and cooperation will significantly accelerate the rates of increase in production and of technical progress in each of these countries and in the socialist camp as a whole. This means that as the economic laws of socialism emerge into the arena of the world system of socialism, new qualitative factors in utilization of these laws appear, and the force of the advantages of the socialist method of production significantly increases. Thus, utilization of the law of planned, proportional development of the economy, and of other economic laws, will permit an equalization of the levels of economic and cultural development of the socialist countries, and will raise the economies and cultures of the formerly backward countries on the basis of a brotherly cooperation and mutual aid. These countries will now be able to overtake time rapidly. As a result, the lands of socialism will undergo the transition to communism more or less simultaneously. The most important and determining facts in this connection are the principles of advancement to communism, which are common to all these countries. However, there are special features in the methods in which these general principles are applied to each country. The uniqueness of the historic conditions existing in each is expressed in the concrete forms of development of socialism in the various countries (the fundamental and major matters being common to all). Neither the transition to socialism nor the transition to communism can be realized without taking these different conditions into account. A generalization of this international experience on the basis of Marxism-Leninism, constituting a creative contribution of all the countries of the socialist camp, has to find reflection in the political economy of socialism in the entire sphere of problems that it deals with.

As our production relationships are developed and perfected, the economic laws of socialism also develop. They will, to an ever increasing degree, express the gradual approximation of socialist relationships of production to communist. Today it is still very difficult to conceive of the system of economic laws of communist society, which will be an objective study of the political economy of the future under communism. In any case, if we speak of the most

general tendencies, it would appear to us that those economic laws operative today, such as that which is most fundamental — the planned development of the national economy, the continuous improvement in labor productivity — will remain in force under communism, because their essence reflects the general characteristics of both phases of the communist formation. However, as has already been indicated, these laws will undergo significant change.

The socialist law of distribution in accordance with work performed, which reflects the specific peculiarity of socialism, and will, with the introduction of communism, yield to another, permanent law of distribution in accordance with needs, is another matter. Today, the basic and decisive role in distribution of consumer goods is played by the socialist law of distribution in accordance with labor, employed in the upbuilding of communism. However, even now, the communist procedure for improving the national well-being by free social forms of satisfaction of the needs of the population, is applied to an ever greater degree. This, in embryo, the distribution in accordance with need, which will exist in the future. What are the role and interrelation between the principle of distribution in accordance with work performed and this communist path of increasing the well-being of the people in the period of advanced construction of communism? How will this relationship change in the foreseeable future? This is a subject for theoretical investigation based upon careful analysis of the existing situation, the prospects of development, and planned accounting.

Today, employment of the law of value plays an essential and important role in the upbuilding of a communist society. However, as communism becomes established, and commodity production is outlived, the operation of the law of value will cease. Commodity and monetary relationships are developing in our country at the present time, and forms of the economy based on relationships in kind are diminishing in a number of fields. This process, which is yielding a major positive effect, will continue further. However, the development of commodity and monetary relationships will not be reinforced to infinity, and another tendency will manifest itself at given stages. What will be the directions, forms, and stages of the further development of commodity production and the utilization of the law of value in the period of all-out upbuilding of communism? An answer to this question requires a theoretical analysis based on abundant contemporary material and consideration of prospects in the field of production and distribution.

If one proceeds from the fact that the political economy of socialism takes the present as its starting point and faces the future in attitude, a number of conclusions have to be drawn therefrom.

To begin with, every scientific investigation in political economy, devoted to contemporary problems of the Soviet economy, must be conducted in conjunction with the perspective development of our country toward communism. In this connection, the study of the new and developing economic forms would constitute a medium for shedding light upon the roads to be followed in the further upbuilding of a communist economy. It goes without saying that this does not at all mean failure to consider the pressing problems of the present day and to lose them in the mist-shrouded peaks of future problems. Each annual plan is an organic part of the seven-year plan, and the seven-year plan is a real guide to action today. Realization of the annual plan proceeds with constant orientation upon the seven-year plan. At the same time, the seven-year plan is a most important and decisive organic part of the general plan. And the realization of the seven-year plan will be based on

orientation upon the general plan. Without this, a correct solution of problems of planning of capital investment, of distribution of production, of technical progress, and of changes in the structure of the social product, etc. cannot be accomplished. If consideration of the future is essential to solution of the problems of the present day, then, on the other hand, elaboration of long-range prospects must be firmly based on analysis of present tendencies and processes. Otherwise, baseless speculation takes the place of scientific forecasting. V. I. Lenin repeatedly appealed that creative fantasy, bold "guesswork" — an inseparable element in long-range planning — be based upon a real consideration of reality. The Communist Party is consistently carrying this demand into life.

The further creative development of the political economy of socialism requires a decisive turn toward elaboration of synthesizing economic problems of long-range planning. There are still economists who see in this a violation of the purity of academic canons, a loss by political economy of its "scientific nature," of a retreat to empiricism, etc. However, what we are discussing is specifically the fundamental problems of political economy itself (expanded reproduction, rates and proportions in the economy, the social product and the national income, a balance sheet of the national economy, productivity of labor and cost, efficiency of production and capital investments, the principles for the geographic distribution of the forces of production, the prospects for the development of government and collective-farm forms of the economy, the process of elimination of the existing differences between town and country, between mental and physical labor, the problem of material incentives, distribution, price formation, living standard, etc.). If the political economy of socialism were isolated from the theoretical elaboration of economic problems of a synthesizing nature in long-range planning, damage would be done to both theory and practice. An intimate unity is evident here. Without organizational ties to long-range planning, the political economy of socialism would be deprived of the most important source of its development. At the same time, elaboration of these problems in the long-range plans is unthinkable in isolation from political economy. It goes without saying, that it would be impossible, in any degree, to identify political economy as the science of objective economic laws with the practice of planning, or to reduce it to presentation of branches of the plan. This would be fatal for economics as a science. What is had in mind is something else: utilization of the conclusions of political economy in the elaboration of scientific problems in the national-economic plans. This is, in turn, an essential condition for the development of the science of economics itself. The matter at issue is not at all that of referring all the scientific problems of planning to the sphere of political economy. Here, a special, specific and very extensive range of problems exists: the methods of planning estimates, the system of planning, the organization of planning, not to speak of the numerous problems in production and technology having to do with the economies of branches of industry, and the technological sciences.

Finally, whereas any category in the socialist economy must now be studied with respect to its role in the process of all-out upbuilding of communism, this demands that the appropriate conclusions be drawn with respect to the teaching of the political economy of socialism. It is important that all themes having to do with the socialist system of the economy be elucidated to a greater or lesser degree (depending upon very different specific conditions of education) in conjunction with problems of the all-out upbuilding of communism. It would be incorrect to concentrate

questions having to do with the transition to communism only in a single theme at the end of a course, while limiting oneself to a general characterization of the categories of the socialist economy and a static presentation thereof on the level of the present day in all other themes. Basing ourselves on the exceedingly rich materials of the 21st Congress of the Communist Party of the Soviet Union and by use of contemporary factual data, with employment of the appropriate economic literature, instructors will be in a position to present the necessary elucidation of the prospects for the development of our economy.

Today, the weak relationship between many economic institutions and life is manifested with particular force, their work is isolated from the growing demands of practice, and rests to only a limited degree upon analysis of factual data. They bypass new important pressing problems, and frequently base their investigations upon outdated materials and hypotheses. This is particularly applicable to the Institute of Economics of the USSR Academy of Sciences, if it be regarded as the institution called upon to play a role among all others in the field of economics.

The job of rendering economic investigations pertinent to real problems demands a considerable reinforcement of the relationship of scientific economic institutions with the planning organs, the national economic councils, and the enterprises. As has been emphasized in the decisions of the 21st Party Congress, the science of economics "must be intimately related to the planning of the national economy and the entire practice of the upbuilding of communism." Active participation in the activity of the planning agencies, in the elaboration and analysis of economic plans, will render the knowledge of economists in the field of development of the national economy more specific and many-sided, will facilitate the development of scientifically-founded conclusions useful in practice. The specificity of their knowledge will permit economists to pose new problems arising out of life to an ever-increasing degree.

One of the most important criteria of the scientific value of investigations into the socialist economy must become the utilization of the results thereof in practice in the upbuilding of communism. This would have a creative effect on all the scientific research activity of the economics institutes, in the preparation of material for the press, which should be based upon solution of pressing economic problems, and not simply upon the writing of commentaries on orders published by the government. It is in place to remark that sometimes even commentaries of this kind become outdated, because the delays that occur in preparing some studies for the press cause them to appear when the earlier legislation has been replaced by later.

The creative development of our economic science, a profound investigation of the laws of transition to communism, a bold posing and scientifically founded solution of new, pressing, long-range problems, assisting in acceleration of the development of the national economy and in elimination of lagging in the economic institutes relative to the practice of the upbuilding of communism — all this requires significant changes in the direction and methods of economic investigations, including those into the political economy of socialism. The matter at issue is primarily that of attaining a degree of concreteness in investigations that would make possible a real utilization of their scientific results and conclusions in the practice of planning economic upbuilding. And the elaboration of conclusions thus scientifically founded demands a serious, broad, all-round utilization and profound analysis and generalization of factual data both primary and secondary, plant-wide, branch-wide, district-wide, national, etc. The success in studying any field

or sphere of socialist economy, no matter what the aspect under investigation, including that of political economy, depends upon the degree to which we guide ourselves by Lenin's well-known proposition, "the serious economist does not concern himself with sterile theses but sits down to study facts, figures, data, will analyze our own practical experience and say 'Here's where the error lies, and this is how it has to be corrected.' " (1)

Unfortunately, our scientific personnel in the field of economics are as yet quite weak in realizing this basic principle of economic investigations. This pertains particularly to the field of political economy. Here the fault often is elevated to a principle of merit. To this day we encounter such concepts on the "division of labor" between the political economy of socialism and the departmentalized economic disciplines as the following: the first should concern itself with qualitative analyses of economic phenomena, and the latter should deal with specific analysis, and study of quantitative values in economic processes. A position of this kind, which violates the unity of quantity and quality, is erroneous and harmful both in the theoretical and in the practical respect.

The line of demarcation between the political economy of socialism and the departmental economists, should, it would appear, not be drawn on the basis of a principle signifying essentially that one has the job of dealing only in citations and of playing at definitions, while the other is to engage in calculations of factual data. What is basic in the distribution of labor here must be the difference in the objects of investigation (in the former instance the synthesis of problems of the national economy, and in the latter departmental problems). The success of investigations in these and other problems is based upon the unity of quantitative and qualitative analysis. Without the quantitative aspect, it is impossible to discover the qualitative factors reflected in specific quantitative indices. An underestimation of either of these aspects cannot but do damage to the investigations. It should be said in this connection that the erroneous demarcation lines drawn in the science discussed above sometimes cause the very concept of economics to be reduced to political economy alone. To the degree that political economy alone is awarded the "qualitative" aspect of economics, it is regarded as the sole "true" economic science, which does not stoop to practical calculations. This clearly manifests the underestimation of the role and significance of economic disciplines engaged in study of realization of economic laws in the specific, concrete conditions of a given branch of industry, and investigating the quantitative and qualitative sides of the economic processes occurring there in (economics of industry, agriculture, transport, construction, commerce, finances, monetary circulation, credit, etc.).

Reasoning to the effect that quantitative calculations are, by their nature, not pertinent to investigations in political economy or should play a very minimal role therein, is usually supported by the following conclusion, i.e., that it is impossible to make quantitative "measurements" of the relationships of production, as this is a "purely" qualitative social category, and that if we attempt to do this we digress from Marxist positions, etc. This represents a conclusion of two different questions. The qualitatively specific nature of each of the forms of relationships of production is beyond argument. The discovery of these specific factors is of the very greatest importance. But neither can one denigrate the role of the quantitative expression of these economic forms. For example, the relationship among various economic structures in the transition period in the USSR, the change in the share of the social sectors in the national economy,

in productive capital, in the national income, in industry, in agriculture, and in commodity circulation, did these not all characterize the development of the relationships of production, which represent the subject of study of the political economy of socialism? For today, the absolute and relative indices of the governmental and the collective-farm form of economy, the dynamics of absolute indices and the shares of the social economy of the collective farms and the personal subsidiary economy of the collective farmers — do questions such as these not enter in the most direct fashion into the purview of the political economy of socialism? Perfection of socialist relationships of production occurs in specific, concrete forms. Without an investigation of the share of the newly-arising economic forms, and their quantitative relationships with other, older forms, without analysis of specific economic quantitative indices (volume of production, scale of circulation, level of labor productivity, cost, etc.), characterizing the advantages and efficiency of these new forms, it is impossible to study the tendencies in the development of socialist relationships of production. Thus, in the process of expansion of inter-collective farm production relationships, it is essential to analyze the quantitative aspect of the matter — the rates of growth and the relationships of concrete forms of inter-collective farm association, so as to determine the spheres in which they can be most effective (for example, construction). It is necessary to study the indices of economic efficiency, and the profitability of inter-collective farm associations for the collective farms. From this, conclusions as to the direction and prospects for their development will follow. Or, consider such a problem in the political economy as the gradual transition to a new and more progressive form of distribution in the collective farms — guaranteed monetary payment for labor. This is a major question of principle bearing on the gradual process of replacement of the labor-day unit by other economic forms, and on the approximation of the forms of payment of labor in the collective farms to wages in the government-owned sector. Investigation of this process and its prospects is unthinkable without analysis of the degree to which these new forms have spread, and the rapidity of their development, of their share in and their relationships to old and intermediate forms, or determination of the collective farms in which their share is greatest (primarily in income groupings of farms), or as to what is their influence upon the production indices of collective farms, the incomes of the collective farmers, etc.

It is appropriate to remind ourselves of the approach taken by V. I. Lenin to statistical data, set forth in his letter to the editors of *Economic Life*, September 1921. Lenin observed that the statistical material put forth in this paper suffered from two shortcomings: "It is accidental, incomplete, unsystematic, and, in the second place, it is not elaborated or analyzed." (2) Lenin demanded the selection of multi-faceted, complete material, and careful systematization thereof, so as always to yield data for purposes of comparison, for discovery of tendencies of development, for identification of successful enterprises, for analysis permitting clarification of the reasons for failure, and for practical conclusions. This has the most direct relationship to investigations in political economy.

In the light of these objectives, what impression does one obtain of the positions taken by those who see, in a developed quantitative analysis of economic phenomena, something that is not required for investigations in the political economy of socialism? The lack of foundation of any such standpoint is particularly evident when we consider political economic investigations of, for example, such categories in political economy as the productivity of socialist social

labor, cost, price, and profitability. How can investigations of these categories in the light of the processes of the further development of communism yield scientifically founded conclusions and recommendations unless a broadly-conceived, multi-faceted analysis of factual material be undertaken? The need for a broad utilization of factual data for creative elaboration of problems of socialist reproduction is sharply felt, as is the need for study of problems having to do with a balance sheet of the national economy, with production and distribution of the national income, with sources from which high rates of increase in the social product can be obtained, as well as changes in its structure and inter-departmental ties based on priority growth of production of the means of production, analysis of methods of eliminating the partial disproportions still existing among various branches of the economy, investigation of the relationships among the rates of expansion of the basic productive capital and the increase in production, of resources for reduction of capital investments per unit of production, etc.

The problem today is not only that of "permitting" quantitative calculations to enter the cathedral of "pure economic theory" but is that of sharply elevating the role and significance of these calculations in political economic investigations and in the science of economics as a whole, and in the elaborations of the optimal theoretical decisions of pressing economic problems.

It must not be forgotten that the decisive condition for application of economic analyses is a correct methodology, based on Marxist-Leninist theory. Without this condition, calculations and analysis of factual materials would become "a play with numbers" and would yield a distorted picture instead of a correct orientation. However, this methodology itself is checked out, developed, perfected and applied by means of comparative calculations.

"Pure methodology," not verified in specific calculations, is commonly limited to the presentation of general principles. However, the job is not that of repeating these principles, but of finding the best specific forms of application for them under given conditions. For example, in order successfully to apply socialist principles of distribution of the forces of production, numerous comparative calculations are needed of changes in cost, efficiency of capital investments, and prospects for increase in production under various variants of the distribution of production. In the given case, this is primarily the field of departmental economics. However, even the political economy of socialism, which elaborates problems of distribution of production, cannot abstract itself from indices of the efficiency of distribution, of the comparative significance thereof, and of their inter-relationship. This requires a broad utilization of the corresponding factual data.

At the present time, scientific work in the problems of the political economy of socialism is not infrequently still limited to the sphere of the most general principles, and separated by a Chinese wall from departmental economics. The boundaries between these sciences should certainly not be erased, but they are frequently artificially exaggerated. There can be no doubt that the significant approximation of investigations in the field of political economy of scientific works in the field of departmental economics and statistics, joint elaborations, particularly in the field of problems of methodology, would be of service to both. This pertains, for example, to the problem of the economic efficiency of capital investments and the introduction of the new technology, a problem that is of vital theoretical and practical importance, but that has hitherto had exceedingly inadequate elaboration. Here what is needed for the joint efforts

of theory and practice, of economists and engineers, and among economists, both of departmental specialists and experts in political economy. However, the latter are still taking a very small part in this work. What is required is a methodology for the elaboration of this problem that would equip the planning and designing agencies with reliable criteria in selecting optimum variants of capital investment. On the basis of this methodology, the utilization of large-scale materials, the scientific, planning and statistical organizations would be in a position to make an all-sided study of the true efficiency of capital investments in a number of branches of industry and, what is most important, to yield well-founded, differentiated plans for increasing the efficiency of capital investments in the long run.

A draft plan of a general typical method of determining the economic efficiency of capital investments has now been prepared. As was proposed by many economists, the length of time required to recoup invested capital was taken as the basis for determination of standards. However, in order to bring this method to a level of concreteness which would satisfy the true requirements of practice, serious work is still needed, with active participation of specialists in political economy. Specifically, in addition to a single, common (average) standard for the efficiency of investments, the elaboration of differentiated standards for individual branches of the economy, that is, determination of the specific standard periods of amortization for these branches, is required. What is one to use as a yardstick in determining differentiated periods of amortization in various branches; what are the elements specific to the branch of industry that have to be taken into consideration? This is a theoretical problem of socialist reproduction, that is complex and important for practical purposes.

Another theoretical problem of major significance to the national economy remains to be solved. The efficiency of investments, the sum of productive expenditures and the results thereof, naturally cannot be measured in a monetary expression that is dependent upon a system of prices. However, prices, particularly for certain means of production, diverge significantly from the socially necessary cost, from value. Moreover, the true economic efficiency of the investments is determined by the relationship of economic results and the socially necessary cost. Consequently, the indices of economic efficiency, based upon prices, and cost (which also reflects prices), does not itself yield a truly social criterion. What then are the socially necessary costs, branch by branch, and department by department? In other words, what is the degree to which prices differ from value? How is one to proceed from prices and costs to value? With the solution of this problem, with the calculation (approximated of course) of the socially necessary expenditures, it would be possible to establish tentative coefficients, suitable for purposes of calculation, for the deviation of prices from the approximately calculated value, for the major forms of production in branches of industry. Calculated coefficients of this type might be taken into consideration in determining the economic efficiencies of capital investments, branch by branch. This requires highly complex work in the field of method by specialists in political economy, by statisticians and other economists. What we have in mind is an approximated calculation of value, or to be more exact, determination of approximately correct relationships among socially necessary costs, branch by branch. The most important thing is that of finding the correct methodological solutions, and then of proceeding to work in the technique of calculation.

It goes without saying that the significance of an approximated calculation of value is of significance far beyond the

bounds of problems of the efficiency of capital investments. A calculation of this kind would play an important role in the improvement of national economic planning, statistics and accounting as a whole. The matter at issue is the balance sheet of the national economy in all its elements, analysis of national income, its structure, measurements of the productivity of social labor, study of price formation, improvement of the pricing system, etc. Today economists write and say a lot about value under socialism, about the degree to which prices do or do not correspond to value, and about utilization of the law of value. It is clear that the practical possibilities for theoretical elaborations of problems of value would greatly increase if they could be given a justified quantitative expression.

Let's take another example. Despite the fact that the purpose of socialist production is a continuous rise in the well-being of the people and in popular consumption, economists often consider problems of consumption to be "not pertinent" to the science of economics, and, in point of fact, hardly deal with them at all. However, under the conditions of progress toward communism, and toward an abundance of products, and in the presence of a rapid increase in living standards, particular importance attaches to the study of such questions as the influence of the growth of production and of technical progress under consumption (for example, the influence of development of the chemical industry upon consumption), the dependence of the structure of consumption upon income level, and factors in changing demand (including the role of psychological factors), etc. Here, a many-sided specific analysis is required.

An increase in the concreteness of economic investigations requires a serious change in the attitude of all economists (including those working in this field of the political economy of socialism) towards statistics, and a pronounced improvement in their utilization of mathematical methods and modern computer techniques in these investigations. It is important that the backwardness existing in this field be eliminated as rapidly as possible. As far as the utilization of mathematical methods in scientific studies is concerned, the fact is that no few preconceptions exist in the practice of the planning and statistical agencies. Here we encounter a confusion of two different questions. The erroneousness of the mathematical school of bourgeois political economy, and the impermissibility of substituting mathematics and mathematical formulas for analysis of economic laws is one thing. The application of mathematical methods, based on Marxist-Leninist economic theory, to the service of socialist planning, is quite another. The job is to utilize to the greatest possible degree so remarkable a tool as mathematics for the purpose of finding the best possible economic solutions. In so doing, one must not omit from consideration that mathematics by itself cannot be the key to a correct solution of economic problems, as some people think. The mathematical method is merely an auxiliary means for studying economic phenomena from their quantitative aspect. A positive result can be attained only if the methodological approach is correct, and if there is no underestimation of the qualitative aspects of economics.

Today, the production of modern, high-efficiency computer equipment is being rapidly developed. It is important to assure that it be introduced as extensively as possible into the field of economic calculation, particularly into price formation, into planning practice and economic administration, with the object of utilizing the calculations performed for the selection of the optimal economic variants. This requires coordinated work on the part of engineers, mathematicians, economists, and statisticians.

The most important problem facing economists and statisticians in this sphere is the development of programs for the programming of high-speed computer equipment. It is appropriate to remark, in this connection, that here too economic investigations have got to be highly specific.

A reinforcement of the concreteness of the scientific work of economists requires that they make a serious change in the direction of the use of equipment, the solution of technical and economic problems, and technological progress. This is of high significance to the development of the political economy of socialism as well. The creation of the basis for communism in material technology will be the most important practical problem of the USSR for the next 15 years. This will have a decisive influence upon the development of our entire national economy, and upon perfection of the socialist relationships of production. Without even dealing with the departmental economies, and with problems of the economy and organization of the individual enterprise, where economic and technical problems are so closely interwoven, the fact is that any problem in the political economy of socialism is more or less intimately related to tendencies toward technological progress.

In connection with all the foregoing, it would be necessary to examine the problem of introducing changes in the

training of economic personnel, in particular so as to increase the role of statistics, mathematics and the engineering disciplines in the curricula. It is important that students and graduate students in the economic colleges and departments of economics develop a taste for and skills in statistical and mathematical calculations from the very outset, and for economic analysis of statistical data. Measures to retrain and increase the skills of economic personnel in this direction would be highly useful.

A reinforcement of the specific nature of economic investigations will make possible a substantial improvement in the scientific and theoretical level on which they are conducted, and will facilitate successful development of the science of economics in the interests of the upbuilding of communism.

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N. Siluyanov

Brotherly Collaboration and Mutual Assistance on the Part of the Socialist Countries

(On the 10th Anniversary of the Council of Mutual Economic Assistance)

The 21st Congress of the Communist Party of the Soviet Union was a major event in the life of all the socialist states. The Congress summarized the enormous progress of the working people of the Soviet Union in economic and cultural upbuilding and adopted a seven-year plan for the development of the national economy of the USSR — a plan for the all-out upbuilding of the communist society in our country. In their speeches at the Congress, the representatives of the Communist and Workers' Parties of the countries of the socialist camp described the achievement of the peoples of their countries in the building of socialism.

In the light of the historical triumph of the Soviet Union and the other socialist countries, the anti-Party group of Malenkov, Kaganovich, Molotov, Bulganin, and Shepilov, which conducted a struggle against the Leninist general line of our Party, and took a particular stand against the Party's position in foreign policy, the purpose of which is the weakening of international tensions, the strengthening of peace, and the development of collaboration and reinforcement of friendship among the peoples, appears in all its pettiness.

The Soviet seven-year plan is an event of international significance. Realization of this plan will have major significance not only for the further rapid development of the Soviet Union, but for the development of all the countries of the world socialist system, and will facilitate the successful upbuilding of socialism and communism in the countries of the socialist camp. The seven-year plan of the USSR marks a new stage in the many-sided economic collaboration of the lands of socialism. It furthers reinforcement of the economic ties between the Soviet Union and the other socialist countries. Conditions will be created to deepen the international socialist division of labor and to achieve a broader and scientifically founded inter-governmental specialization and cooperation in production, and the further expansion of economic ties among all the socialist countries. Comrade N. S. Khrushchev, in his report to the 21st Congress, pointed out: "A major role in the development of the economy of the socialist camp is to be played by the international division of labor, and in particular by its highest forms — specialization and sub-contracting. This provides new and supplementary possibilities for increase in production in the entire socialist camp and in each individual socialist country. Alone, no country could develop rates of progress as rapid as it can in a system of socialist states."

The international socialist division of labor, developing with the formation of the world socialist system of economy, is an objective necessity. Within the world system of socialism the law of planned, proportional development is at work with the result that the countries of lesser economic development, basing themselves on the experience in other socialist countries, upon all-round collaboration and mutual

aid, will develop their economies and cultures at more rapid rates. Thus, the general line of economic and cultural development of all the socialist countries will become more uniform.

In the development and deepening of the international socialist division of labor, and in the provision of planned coordination of national economic development and economic collaboration of socialist countries, the Council of Mutual Economic Assistance, which will mark its 10th anniversary in April, 1959, plays an important role.

As a result of the world-historic triumph of the Soviet Union, a number of countries in central and southeastern Europe fell away from the capitalist system during the Second World War, the system of people's democracy triumphing in these countries. Between these countries and the Soviet Union there were established relationships of the new type, relationships based upon the principles of socialist internationalism, and characterized by brotherly cooperation and mutual aid. Thanks to this, and primarily as a result of the all-round assistance of the Soviet Union to the lands of people's democracy, these countries acquired the possibility of rapidly accelerating the restoration of their war-wrecked economies, and of entering upon the path of the upbuilding of socialism.

In January, 1949, there took place in Moscow, the Economic Conference of Representatives of Bulgaria, Hungary, Poland, Rumania, the Soviet Union, and Czechoslovakia. The Conference concluded that significant successes had been achieved in the development of economic relationships among these countries, and that this was reflected primarily in the substantial increase in commodity exchange among them. It noted that the governments of the United States of America, England and certain other Western European countries, were actually boycotting trade relations with the countries of people's democracy and the USSR, in connection with the fact that the socialist countries were rejecting the dictate of the Marshall Plan, because this plan violated the sovereignty of individual countries and the interests of the national economies. The Conference deemed it necessary to expand the mutual economic collaboration of the lands of people's democracy and the Soviet Union, and thus decreed conditions making for successful construction of socialism in the lands of people's democracy, as well as for strengthening the entire socialist camp.

To realize broad economic collaboration among the countries of people's democracy and the USSR, it was deemed necessary to create the Council of Mutual Economic Assistance (CMEA) consisting of representatives of the countries participating in the Conference, on the basis of equal representation. The CMEA was assigned problems in the organization of the details of plans for economic ties among the participant countries, on the basis of

international specialization and subcontracting of production, and of plans for the development of transport as well as transit shipments, and for assistance in exchange of experience among participant countries, and in elaboration of measures for scientific and technological collaboration and exchange of technical experience. The establishment of intimate economic ties between the lands of people's democracy and the Soviet Union required, in addition to the further development of bilateral collaboration among them, the development of economic collaboration on a multilateral basis.

It is to be emphasized that the Council of Mutual Economic Assistance is not a super-national, managerial agency, and not an international planning organ. The Council is an international organization of equal and sovereign states, which do their planning and develop their national economies independently. The purpose of the Council is to advance recommendations to the participant countries on important economic problems of interest to these countries, by many-sided discussion.

The countries that organized the Council of Mutual Economic Assistance decided that the CMEA is an international organization to which other European countries sharing the principles of the Council and wishing to participate in broad economic collaboration with the governments participating therein, might adhere. In 1949, Albania joined the CMEA, and in 1950 the German Democratic Republic joined it. In 1956, observers from the Chinese People's Republic began to participate in the work of the meetings of the Council of Mutual Economic Assistance, in 1957 observers from the Korean National Democratic Republic, and in 1958 observers from the Mongolian People's Republic and the Democratic Republic of Vietnam.

The first session of the Council of Mutual Economic Assistance took place in Moscow from April 26 to 28, 1949. The session gave practical form to the CMEA as an international organization of socialist states, approved a plan for the functioning of the Council for 1949, and also examined a number of organizational questions having to do with the activity of the CMEA.

In the first years of its existence, the Council of Mutual Economic Assistance concentrated its activity on the elaboration of problems having to do with expansion of trade relations among the participating countries, upon organization of scientific and engineering collaboration and the exchange of technical experience among them, and also upon the preparation of proposals on specific problems of economic upbuilding in the participant nations. The concentration of the Council of Mutual Economic Assistance chiefly upon problems of development of trade among these countries was not accidental. The rapid expansion of this trade was in accordance with their economic and political interests. The development of planned commercial relationships among these countries was dictated by the requirements of socialist upbuilding, and the need for mutual supply of the most important types of industrial and agricultural produce. The unification of the efforts of the socialist countries, directed toward expansion of economic collaboration, and primarily toward developments of foreign trade among them, was also facilitated by the political and economic discrimination against these countries on the part of the capitalist countries of Europe that had been drawn into the Marshall Plan and were conducting a policy of economic boycott of the countries of the socialist camp.

In connection with the recommendations of the second session of the Council of Mutual Economic Assistance (August, 1949, Sofia) the nations participating in the CMEA concluded long-term trade agreements in 1950 and 1951.

These agreements, based on the principles of complete equality and mutual profit, were one of the methods of mutual coordination of the economic development of the European countries of people's democracy and the USSR, of the growth in their trade turnover, and created a firm foundation for further expansion of economic relationships among them. From 1951 to 1955, the trade turnover among the lands participating in the Council increased substantially (1950 = 100):

	1951	1952	1953	1954	1955
Albania	169	157	177	125	188
Bulgaria	108	130	151	162	161
Hungary	122	150	170	170	157
German Democratic Republic	153	168	220	258	248
Poland	121	135	140	154	143
Rumania	113	140	161	147	159
USSR	133	168	182	188	185
Czechoslovakia	127	150	174	170	184

Trade relations between the European lands of people's democracy and the Soviet Union expanded substantially. Thus, between 1951 and 1955, trade between Albania and the USSR rose 71%, that of Bulgaria and the USSR 50%, that of Hungary 46%, that of the German Democratic Republic 169%, that of Poland 71%, that of Rumania 65%, that of Czechoslovakia 97%. The shipments by the Soviet Union under long-term trade agreements to the lands of people's democracy, of equipment, including equipment for complete enterprises, with the necessary raw materials and other materials, plus the granting of technical aid and the organization of new areas of production and the reconstruction of existing industrial enterprises, aided the economic development of the lands of people's democracy, realized their industrialization, and the reconstruction of the structure of the national economy. The all-round assistance of the Soviet Union facilitated acceleration of the construction of the foundations of socialism in the lands of people's democracy, and helped to maintain their independence.

The Soviet Union, in carrying out the recommendations of the Council of Mutual Economic Assistance, directed its export resources primarily to satisfying the needs of the lands of people's democracy. Such important types of production as machines and equipment, iron ore, coke, ferrous and non-ferrous metals, petroleum products, cotton, were exported chiefly to the lands of people's democracy.

Trade between the European lands of people's democracy also increased considerably. From 1951 to 1955 Albania's trade with Bulgaria increased more than six-fold, that with Hungary 35%, and more than 100% with Czechoslovakia. The trade of Bulgaria with Hungary rose 49%, with the German Democratic Republic by more than 370%, and with Rumania it more than tripled. The trade of Hungary with the German Democratic Republic rose to 3.5 times its former level, while doubling with Czechoslovakia. The trade of the German Democratic Republic with Poland rose 44%, while it increased ten-fold with Rumania.

Significant changes occurred in the commodity structure of export and import by the various countries. Thus, the German Democratic Republic, Czechoslovakia and Hungary increased their shipments of machinery, equipment, and production tooling to other CMEA countries in need thereof. The share of these commodities in Czechoslovakia's

exports to CMEA countries rose from 36.1% to 51.1% in the 1951-1955 period, while the corresponding figures for Hungary were 31.6-37.4%, and for the German Democratic Republic, 28-55.7%. The export of machinery and equipment from Poland, Rumania and Bulgaria also increased. The share of machinery and equipment in the imports of a number of lands participating in the Council also increased.

Realization of the recommendations of the CMEA on development of trade among the participant countries on the basis of long-term trade relationships, aided in the reconstruction of the structure of the economies of the European lands of people's democracy with the purpose of eliminating the distortions inherited from the capitalist system, and of organizing and expanding the production of industrial equipment, development of the raw material supply, and of technical progress in the national economy, and improvement in planning.

In meeting the orders of the Soviet Union and the other socialist countries for the production of the machinery industry, the European lands of people's democracy created new and substantially expanded existing types of production. Thus, Poland and the German Democratic Republic founded and developed maritime shipbuilding and the construction of fishing vessels; Czechoslovakia substantially expanded the diesel industry, the production of forging and pressing, of power generating, of lifting and transfer, and of chemical equipment, as well as the building of river vessels. Hungary increased the output of diesel engines and trains, Rumania that of sea-going tankers, tugs and fishing vessels, the German Democratic Republic the manufacture of diesels, the production of oil refinery and chemical equipment, etc.

Along with the elaboration and recommendations on the development of trade between the countries participating in the CMEA, this organization began, from the first years of its existence, to give much attention to expansion of scientific and technical collaboration and the exchange of technical experience among them. The realization of the recommendations developed and adopted at the second meeting of the CMEA assisted the development of scientific and technical collaboration among countries participating in the CMEA in the interests of the most rapid introduction of advanced technology and the newest achievements of science into production.

In the world socialist camp, the exchange of engineering documents, of production experience, the transfer of patents and licenses, is performed free of charge, the only cost being for the actual expenses involved in preparing these documents. The socialist countries are engaged in a large-scale exchange of plans in the field of capital construction, of drawings of machines and equipment, of descriptions of technological production processes, and are assisting each other in work of engineering design, geological prospecting and exploration, in the training of engineering-technical and scientific personnel, as well as in the conduct of joint conferences on the most important problems of scientific technology. They send experts into each others' countries for study of experiences in production and engineering, etc.

Utilization, by the lands of people's democracy, of the technical documentation and production experience made available on mutually advantageous terms, has assisted them in organizing new forms of production, in increasing the technical level thereof, and the quality of products manufactured. Of particularly great significance was the free transfer of sets of plans and the production experience to lands of people's democracy less developed industrially and not in possession of skilled engineering and technical

personnel.

In conjunction with the needs of the national economy of the CMEA countries, scientific and technical collaboration among them is developed primarily in the major branches of heavy industry.

The Soviet Union is giving all-round assistance to the lands of people's democracy in developing a number of the most important branches of the national economy. Thus, it has been of assistance in planning many industrial and other projects, in delivering complete sets of equipment to these countries, in launching operations of various projects, and training engineering, technical and labor personnel. All this has facilitated the organization of the production of many types of products in the lands of people's democracy, and in particular that of tractors, coal-mining combines, various types of metal-working machinery, electrical motors, power transformers, railway rolling stock, and drilling equipment. In turn, a number of the European lands of people's democracy are assisting the Soviet Union in developing certain types of industrial and agricultural production.

Expansion of the commercial ties and the scientific and technical collaboration among the CMEA countries has led to a significant reinforcement of economic relations among them. This has facilitated strengthening of the system of people's democracy, and the growth of trained personnel native to these countries, as well as further development of the planning of their economies. During this period, all the European lands of people's democracy have proceeded to undertake planned development of their national economies as a whole, and have already developed their economies substantially on the basis of long-range national economic plans.

The upsurge in the economy of the Soviet Union and the European lands of people's democracy has made it possible to establish closer economic relationships among them and to proceed, within the framework of the CMEA, to realization of the major problem posed before the Council — the conduct of joint efforts in the compilation of long-range plans for the development of interrelated branches of the national economy, on the basis of international specialization and subcontracting. A firm political and economic foundation exists for carrying this collaboration out successfully. This foundation consists of the unity of the social and economic systems of the socialist countries, the community of interests and objectives in the upbuilding of socialism and communism, planned development of the national economy. The following is the problem that was faced by the lands participating in the CMEA: to make better and more complete use of the advantages created by the international socialist division of labor, and to coordinate their efforts more intimately in economic upbuilding. In connection therewith, the fourth session of the Council of Mutual Economic Assistance, meeting in Moscow in March, 1954, emphasized that the Council should become a more operative organization of the socialist countries, and an organizer of the economic collaboration among them.

The need for coordination, within the framework of the Council of Mutual Economic Assistance, of the efforts of the participating countries in the solution of the most important problems of economic upbuilding was also defined by the fact that in the course of fulfillment of their long-range national economic plans, certain of the European lands of people's democracy revealed divergences in the development of a number of branches of industry. This divergence was expressed primarily in the fact that, although certain manufacturing industries developed at high

rates in some European lands of people's democracy (this was particularly true of heavy industry), the native raw materials foundation for industry was developed weakly.

A lag was observed in increase in the power of electric power plants, relative to the growth of industrial production, etc.

Growth in Production of Certain Types of Industrial Products in the European Lands of People's Democracy, 1950-1955, Percentage

	Albania	Bulgaria	Hungary	GDR	Poland	Rumania	Czechoslovakia
Electric power	398	260	181	147	188	206	162
Mineral coal	—	187	192	96	121	78	120
Lignite	476	169	150	146	125	162	146
Pig iron	—	276	188	450	202	178	153
Rolled metal	—	12	173	251	169	123	139
Machinery manufacture and metal processing	232	243	262	209*	...	278	235

* Excluding metal processing.

The lopsidedness in the development of the economies of certain European lands of people's democracy was also expressed in the fact that although large sums were spent on capital development, the scale of capital investments in expansion of agricultural production was inadequate, and this in turn was one of the reasons for the fact that agriculture did not satisfy the growing requirements of industry and the urban population.

Indices of Volume of Production of Industry and Agriculture in European Lands of People's Democracy, 1951-1955 (1950 = 100)

	Industry		Agriculture	
	1951	1955	1951	1955
Albania	142	274	...	137
Bulgaria	119	190	...	136
Hungary	127	199	116	121
German Democratic Republic	123	190	120	132
Poland	122	212	93	105
Rumania	124	203	126	165
Czechoslovakia	114	170	101	109

Many branches of industry in the lands of people's democracy developed without adequate consideration of needs for various types of production either in the socialist countries or in the capitalist market. Despite the rise in the needs of all the countries participating in the CMEA for machines and equipment, due to the requirements of socialist industrialization and the reorganization of the structure of industrial production, some countries of people's democracy failed to employ fully the capacities of their machinery-manufacturing enterprises.

All these were difficulties of growth, and were inevitable under the conditions of transition from capitalism to socialism. The strength of the Marxist-Leninist Parties lies in the fact that, by analysis of the difficulties of growth, and mobilization of the working people to overcome them, they are assuring further development of the socialist countries. In 1953-1954, many of the European lands of people's democracy carried out a re-grouping of their resources of materials and technology, in the course of execution of

their long-range economic plans, the object being realization of a proportional development of the national economy. The experience accumulated by the lands of people's democracy of fulfilling the first long-range national economic plans showed that in the future, in the elaboration and fulfillment of these plans, a more profound consideration of the mutual interests of the lands participating in the Council would be necessary. In this connection, the Council of Mutual Economic Assistance was faced with problems of improving the coordination of the efforts of the member states of the Council in developing their economies for the period ahead.

In order to elaborate proposals for the development of the major interrelated branches of the national economies of the member states of the CMEA, temporary working conditions were established within the Council, consisting of representatives of the state planning commissions, the ministries and departments of these countries. On the basis of preliminary planning developed by these countries, proposals were worked out on the fundamental trends in the development of the various interrelated branches of the national economy of the member states of the CMEA, for 1956-1960. At the sixth session of the CMEA, held in Budapest in December, 1955, an exchange of opinions on these proposals by working commissions was conducted. The session of the Council approved the fundamental trends in the development of the various interrelated branches of the national economy of the member states of the CMEA, and at the same time deemed it necessary to propose the elaboration, within the framework of the Council, of a number of most important economic problems having to do with the further development of the fuel and raw material foundations of the respective European lands of people's democracy. At this session, for the first time, practical measures were drawn up for development of specialization in the production of various types of machinery manufacture among the states' members of the Council. Specifically, recommendations involving specialization in the production of automobiles, tractors, railway rolling stock and certain types of agricultural equipment were examined and adopted.

In 1950-1955, the production of automobiles and buses, of tractors and agricultural machines underwent substantial development in a number of the European lands of people's democracy. The manufacture of harvester combines was launched during this period in Bulgaria, Hungary, the German Democratic Republic, Poland and Czechoslovakia, while production of mainline diesel engines began in

Hungary, Poland, Rumania and Czechoslovakia, and passenger railway cars in Bulgaria and Rumania, etc. Suffice it to say that the manufacture of trucks increased more than four-fold during these years in the European lands of people's democracy, that of buses more than 2.5 times, and that of various types of tractors by more than 34%. However, the characteristics of these types of machines varied from one country to the next. Identical types of automobiles, tractors and other machines were manufactured in small quantities in various countries, and a large number of models were in production. This inhibited the development of large-scale serial and mass production, the introduction of modern technology, the complete utilization of the available capacities of the machinery-manufacturing enterprises, increase in the productivity of labor, and reduction in the cost of production.

In this connection, the sixth session of the Council of Mutual Economic Assistance adopted recommendations envisaging that, as individual member states of the CMEA developed manufacture of automotive vehicles and tractors, they concentrate on a single typical series of machines, and also specialize in the production of specific models of automobiles and tractors in individual countries. In selecting the types of automotive vehicles for specialization, the special feature of production in each country, as well as the nature and conditions of transportation therein, was taken into consideration. Thus, it was recommended that the number of types of trucks be limited, as measured in load capacity, and that of passenger vehicles as measured in cylinder displacement, while it was deemed essential that machines of specialized character (dump trucks, machines built for cross country purposes, public health vehicles, etc.) be based on recommended models of trucks and passenger vehicles. Analogous recommendations were adopted with respect to specialization of production of tractors, certain types of agricultural machines, and railway rolling stock.

At the sixth session of the CMEA, it was necessary to continue the elaboration of proposals for further expansion of specialization and subcontracting in the production of various types of machinery-manufacturing equipment among these member states of the CMEA, with the object of creating conditions for gradual transition to more profitable production at a higher technological level.

The session took note of the positive significance of the long-term trade agreements operative in 1951-1955 in the fulfillment of the economic plans of the respective countries. These agreements facilitated reinforcement of the economies both of the individual countries and of the socialist camp as a whole, and the further expansion of the economic ties among the member states of the Council. The sixth meeting adopted a resolution recommending that the member states of the CMEA conclude long-term trade agreements among themselves for 1956-1960, these agreements to give due consideration to the fundamental directions in the development of the national economies approved by these countries, and to the need for further international specialization of production by types of machines and equipment.

In realizing the decisions of the sixth meeting of the CMEA, the member states of the Council continued their work on long-range plans for the development of the national economy in 1956-1960. Along with this, work was conducted within the Council in further coordination of the efforts of these countries in developing the major interrelated branches of the economies, and proposals were prepared for expansion of the economic ties among the member states of the CMEA in the period during which the long-

range plans would be operative. In order to carry this work out, temporary commissions were set up within the CMEA to carry out specific objectives. They were composed of representatives of the member states of the Council. The proposals advanced by the commissions were an object for discussion at the seventh meeting of the CMEA.

The recommendations adopted at the seventh meeting of the CMEA, held in Berlin in May, 1956, were directed toward further solution of problems of development of the raw material and fuel resources of the individual countries in the European lands of people's democracy, improvement in utilization of the capacities of the machinery-manufacturing industries in specific countries, further expansion of international specialization and subcontracting of production in the machinery industries.

The long-range economic plans of the European lands of people's democracy for 1956-1960 set forth a considerable increase in the production of pig iron, steel, rolled metal, coke, and the output of iron ore, coal and petroleum, as well as the production of machinery and chemical industry, grain and certain other types of production. However, in the course of work in the compilation of these long-range plans, difficulties arose in guaranteeing the planned development of the national economy in such fields of industrial raw materials as coal, petroleum products, rolled ferrous metals, iron ore, coke, certain types of non-ferrous metals, and certain types of agricultural produce. Taking note of these problems, the seventh meeting adopted resolutions directed toward more complete study of types of products in short supply to the national economies of the member states of the CMEA.

One of the conditions for the overcoming of these difficulties was a more complete utilization of the reserve capacities available in some branches of industry in the member states of the Council. On this basis, the CMEA recommended that these countries increase the production of pig iron, steel and rolled metal in 1956-1960 by improving the technological and economic indices of operation of their metallurgical plants, by broader mechanization and automation of production processes, by improved utilization of the capacities of rolling mills, by specialization in particular rolled shapes, by increase in the capacities of existing assemblies on the basis of reconstruction thereof, etc. Of great importance therein, was utilization of the experience of the leading enterprises of the member states of the CMEA, as well as scientific and technological collaboration. The seventh meeting of the Council took concrete steps in this direction.

At the session it was deemed desirable that the Soviet Union, having resources of rich iron ore, would give preference in the development of this field so as to meet the needs of other member states of the Council; that Poland, having resources of high grade coal, would concentrate attention on priority development of production therein and would assist other countries to meet the needs of their national economies in coal. Provision was made for compensation of the additional efforts on the part of Poland by other member states of the CMEA, on a mutually profitable basis. Departmental specialization of these countries facilitated further reinforcement of economic collaboration of the socialist states, and was an example of the creative utilization of the advantages of international socialist division of labor. Realization of the recommendations of the CMEA as to improved utilization, by these countries, of hidden reserves of production in the coal industry, non-ferrous metallurgy, the chemical industry, machinery manufacture, agriculture and other important branches of their

national economies facilitated work by the member states of the Council on their long-range plans for 1956-1960.

The CMEA provided for further steps in the development of intergovernmental specialization and subcontracting in the machinery manufacturing industry. Proceeding from the economic desirability of elimination of unjustified parallelism in the manufacture of identical shapes and sizes, and to increase serial production, the member states of the CMEA agreed at the seventh session of the Council to conduct measures for intergovernmental specialization in the production of the major types of machines and equipment. Recommendations of the sessions on intergovernmental specialization of production embrace more than 600 groups and models of machines and equipment, including the fields of power-producing machinery, electrical equipment, forging and pressing equipment, cranes and transportation equipment, metallurgical and casting equipment, equipment for the coal and petroleum industries, many types of machine tools, tractors, automotive vehicles, agricultural machines, railway rolling stock, vessels, etc. Thus, it was decided that coal mining equipment would be manufactured in the German Democratic Republic, Poland, the USSR and Czechoslovakia, equipment for the concentration and briquetting of lignite in the German Democratic Republic, power-producing trains would be made only in Czechoslovakia, refrigerator cars with mechanical refrigeration only in the GDR, hydraulic forcing presses of 2,000 to 10,000 tons capacity in the GDR, the USSR and Czechoslovakia, equipment for production of aluminum from bauxites in Hungary and the USSR, electrotellers and electric-power trucks of up to five-ton capacity, in Bulgaria and the USSR. The production of equipment for the knitwear industry will be developed primarily in the GDR and the USSR, and production for the polygraphic industry in the USSR and Czechoslovakia. The session gave special attention to the need to improve the quality of the machinery, equipment, instruments, and spare parts produced. It was recognized that a most important objective of the member states of the CMEA in the field of machinery manufacture in 1956-1960 is the further mastery and extensive development of the production of new, high-output models of equipment, machinery, machine tools, presses, and of more modern equipment and tools. Of high significance in the successful fulfillment of this undertaking are the recommendations made at the session for conferences of specialists of the interested member states of the Council for exchange of technical experience.

The constant development of collaboration among these participant states in the CMEA, in the fields of economics, science and technology, and the ever broader scope of the problems examined in the CMEA, as well as the interest of these countries in expansion of mutual collaboration, demanded a further perfection of the forms and methods of work of the CMEA, as organizer of economic, scientific and technical collaboration. With the object of development and reinforcement of the economic ties between the member states of the CMEA, the organization of direct and many-sided collaboration between the corresponding ministries and departments of these countries, the seventh session of the Council adopted a resolution to create standing departmental commissions for economic and scientific-and-engineering collaboration in the fields of ferrous metallurgy, non-ferrous metallurgy, the coal industry, the petroleum and gas industry, the chemical industry, the machinery-manufacturing industry, and agriculture among others. These commissions are organs of the CMEA and are guided by its principles. They are charged with the elaboration of proposals on economic problems affecting the interests of

a number of countries with the object of rational development of production, utilization of economic and national resources and productive capacities, on the basis of further development of specialization and subcontracting of production among these countries; the elaboration of technical problems affecting the interests of a number of countries, and the conducting of scientific and technical conferences and meetings of specialists with the object of involving the scientific and technological personnel of all the countries in the solution of pressing technical problems, as well as in the offering of proposals for the development of new technology; the elaboration of recommendations for unification of the major parameters in the various branches of industry, methodological propositions pertaining to the methods of calculation of technical coefficients in the calculation of production, etc.

The standing commissions of the CMEA have already done substantial organizing and methodological work, have examined problems of further deepening of the economic and scientific-and-engineering collaboration of the member states of the CMEA both in the individual branches of the national economy and in interdepartmental ties. These commissions have developed recommendations for specific major economic problems bearing on the interests of a number of countries. Realization of the recommendations developed by the commission on the petroleum and gas industry will make it possible for the member states of the CMEA to eliminate the shortage of petroleum and refinery products by 1960. The commission on ferrous metallurgy has developed recommendations on improving the utilization of the capacities of rolling mills in the member states of the CMEA. Realization of these proposals will make it possible for these countries substantially to increase the rolling of ferrous metals as early as 1958. On the basis of recommendations of the Committee on Economic and Scientific-and-Engineering Collaboration in the field of electric power, a number of power transmission lines are being erected to connect the systems of the GDR, Poland, Czechoslovakia and Hungary, and the construction of similar lines between the USSR and Hungary, Rumania and Czechoslovakia, Bulgaria and Rumania, is planned. Unification of the power systems will permit improved supply of energy to a number of countries. Of high significance to the technical progress of the national economies of the member states of the Council are the recommendations advanced by the standing committee of the CMEA on matters of coordination of designing and of scientific research work.

To the degree that the economic collaboration of the member states of the CMEA is further reinforced and expanded, the scope of problems subject to joint discussion by the appropriate agencies of these countries has expanded.

At the eighth session of the CMEA, held in June, 1957, at Warsaw, supplementary discussions were held on expansion of the production of coal in the Polish People's Republic, with participation in the financing and construction of the Polish coal enterprises, of countries interested in the consumption of Polish coal. Certain problems of transport were also examined. The session found it necessary that the member states of the CMEA proceed to elaborate long-range plans for the development of the major related branches of the national economy in the forthcoming ten to fifteen years. This erected a foundation for substantial, systematic work in economic planning of mutual coordination on the basis of long-range plans for the development of the major interrelated branches of the national economy, as worked out in individual countries.

Of enormous significance to the development of brotherly economic collaboration among the socialist countries was

the conference of representatives of the Communist and Workers' Parties of the member states of the CMEA held in Moscow in May, 1958. The conference noted that the economic ties among the socialist countries are constantly being strengthened and are acquiring a more multi-sided character. The conference emphasized that the multi-sided collaboration of the socialist states, based on principles of complete equality, mutual respect for their national interests and socialist mutual aid, permits maximum utilization of the advantages of the world socialist system of economy for development of the production forces of each of the socialist countries and for reinforcement of the economic power of the socialist camp as a whole. The conference heard information on the work of the state planning agencies of the socialist countries in elaboration of the long-range plans for the development of the fundamental branches of the national economy. The participants in the conference unanimously approved the necessity of most complete utilization of the enormous possibilities, and of an all-round consideration of the mutual interests of the socialist countries in development of long-range plans, as well as expansion of mutually profitable forms of collaboration for the purpose of increasing the level of industrialization of the countries having less developed industries. The conference deemed necessary a further rise in the role of the CMEA and its agencies in the organization of economic collaboration.

With the development of the national economies of the lands of the world socialist system, their collaboration is also growing stronger and this collaboration requires more advanced organizational forms as it deepens. With the deepening of the international socialist division of labor, coordination of the national economic plans of the socialist states takes on ever greater significance, the more so as expanded reproduction in the world socialist system is always characterized, at every stage in development, by objectively-arising optimum proportions among mutually related branches of economy of the respective countries.

The conference of representatives of the Communist and Workers' Parties of the member states of the CMEA adopted important resolutions on problems of further development of the economic collaboration among the socialist countries on the basis of a consistent realization of the international socialist division of labor, rational specialization, and subcontracting of production. In this connection, the conference emphasized the need for the fullest possible development of the raw-material producing branches of the national economy and of power production, as well as of further development in introduction of the latest technology. In elaborating problems of the development of the major mutually-related branches of the national economy, having common significance for the socialist countries, the standing departmental commissions of the CMEA on economic, scientific and technological collaboration were recognized to play an important role. At the aforementioned conference, agreed recommendations to the CMEA were adopted on all these problems, with the idea that the Council would adopt the necessary practical measures.

The solutions offered by the conference of representatives of the Communist and Workers' Parties of the member states of the CMEA were a major contribution to the further expansion of the international socialist division of labor, the deepening of intergovernmental specialization and subcontracting of production. Proper organization of subcontracting and specialization of production among the states of the world socialist system of economy will result in saving of material resources and improvement in the productivity of social labor, and in the most rational utilization of the natural resources and economic conditions of the

socialist countries to accelerate the rates of expansion of socialist reproduction. It is to be emphasized that intergovernmental specialization and subcontracting of the production of socialist countries is carried out simultaneously with the complex development of the economy of each country and that this facilitates the planned and harmonious growth in all branches of their national economies.

Representatives of the Communist and Workers' Parties of the lands of people's democracy in Asia participated in the conference. They expressed the readiness of their countries to take active part in the economic collaboration among the socialist states, and also to strengthen this mutual collaboration in the proper forms, by carrying out measures corresponding to the specific conditions of their countries.

The resolutions of the conference of representatives of the Communist and Workers' Parties of member states of the CMEA represent a program for the work of the Council of Mutual Economic Assistance over a long period of time. In connection with the recommendations adopted at this conference, the ninth and tenth sessions of the CMEA discussed and elaborated specific solutions of a number of important economic problems. At the ninth session of the Council held in June, 1958, in Bucharest, discussion took place of the problems of joint work on the long-range plans of development of the major mutually-related branches of the national economies of the member states of the CMEA. The council recommended the member states of the CMEA to give greater attention, in elaborating their long-range economic plans, to the development of the production of raw materials and other materials, particularly of the ferrous and non-ferrous metals, chemical products, fuels and electric power, as well as of agricultural raw materials. To provide more complete consideration in the long-range economic plans of the mutual interests of the member states of the CMEA, the Council recommended that bilateral negotiations be conducted on problems related to the long-range prospects of development of the national economies of these countries. The session also examined problems of further deepening of intergovernmental specialization and subcontracting of production. With the purpose of unifying efforts of the countries in the solution of these problems, the standing departmental commissions on economic and scientific-and-technical collaboration were instructed to elaborate, on the basis of suggestions coming from individual countries, recommendations on particular problems of economic collaboration. The tenth session of the Council, held in Prague in December, 1958, adopted specific recommendations on problems of development of specialization and cooperation in the production of plastics, chemical staple fiber and synthetic rubber, primarily on the basis of utilization of petroleum and natural gases. It also acted on the manufacture of mineral fertilizers in the CMEA countries in the years until 1965. Decisions were adopted for the same period of time on the development of specialization and subcontracting in the production of various types of rolled metal and of ferrous metal tubing, with the purpose of making superior provision for the requirements of the various countries. The tenth session of the CMEA adopted decisions on problems having to do with the construction of pipelines for transportation of petroleum from the USSR to Hungary, the German Democratic Republic, Poland and Czechoslovakia. These countries will do the work of designing and building the pipelines on their own territories with their own forces, and will actively collaborate with the other participants in this construction, with technical assistance from the Soviet Union. The meeting of the Council examined and approved the plan for the

work of the CMEA and its agencies, including questions having to do with the joint work of the member states of the Council on the long-range plans of development of interrelated branches of their economies, and also defined the most important problems to be discussed at the eleventh session of the CMEA.

The harmonious coordination of the interests of the various socialist countries with the interests of the socialist camp as a whole substantially improves utilization of the economic possibilities available to the lands of socialism, and provides significant advantages to them in the peaceful competition with the countries of the capitalist world.

Thanks to the existence of the world socialist system of economy, and the creative initiative of the multi-millions of the working people, as well as the close and all-round collaboration among them, the lands of socialism increased their industrial output in 1958 to five times the level of 1937.

Major successes in the development of industry were recorded by the European lands of people's democracy. In 1958, Albania increased industrial production about 18 times relative to pre-war, Bulgaria about 9 times, Hungary about four-fold, the German Democratic Republic about 50%, Poland more than 5.5 times, Rumania almost 4 times, and Czechoslovakia 3.3 times. It should be noted that this rapid increase was achieved under conditions of reconstruction of economies destroyed in the war.

No one of the lands of people's democracy standing alone, with the exception of the Chinese People's Republic, has the resources and possibilities required for the development of a complete cycle of heavy industry. There is no need for them to have this. Based on intimate, all-round collaboration with the other socialist countries, and with the Soviet Union in the first place, each land of people's democracy is developing its national economy in correspondence with its own national resources, productive possibilities, and the historically-developed industrial habits of the population. Thus, in the Polish People's Republic, priority development is going to the coal, chemical, and shipbuilding industries, the manufacture of transportation equipment, to the textile industry, and a number of other branches of industry; in the Rumanian People's Republic emphasis is going to the petroleum and gas industry and the production of equipment for it, to the chemical industry, to the manufacture of farm machinery, etc.; while in Bulgaria emphasis goes to non-

Share of Socialist Sector in the National Economy
of the European Lands of People's Democracy,
Percent

	Industry (gross production) 1957	Agriculture (agricultural arable) 1958
Albania	97.8	72.8
Bulgaria	98.0	92.0*
Hungary	95.0**	40.0***
GDR	88.8	44.8
Poland	99.2	14.6
Rumania	97.3	60.0
Czechoslovakia	100.0	77.0

* Share of TKZKh in the arable undercrop

* 1956

* Plowland as of March 1, 1959

ferrous metallurgy, to the chemical industry, the manufacture of agricultural machinery, the foodstuffs and light industries.

During a comparatively brief period, the European lands of people's democracy have substantially reinforced the basis for industry in coal, metallurgical, and power, have created new branches of industry, particularly in the field of chemistry and machinery manufacture, and organized serial production of a number of new types of industrial products. The creation and development of a sound industrial base in the lands of people's democracy have enabled them to carry out further socialist transformations.

As a result of the fundamental social and economic transformations, the successful upbuilding of the foundations of socialism, socialist property in the means of production today occupies the dominant position in industry in the European lands of people's democracy, and occupies a similar position in agriculture in a number of countries.

The high average annual rates of increase in industrial production testify to the rapid development of the economies of the European lands of people's democracy, and of the USSR. This is characterized by the following data (1950-1957, in percent):

Albania	20.3
Bulgaria	14.0
Hungary	11.1
GDR	11.7
Poland	14.1
Rumania	13.7
USSR	15.9*
Czechoslovakia	10.8

* For the eleven post-war years
(1947-1957)

The average annual rates of increase in industrial production of the lands of people's democracy in Europe substantially exceed the average annual rates of increase in industry of a number of capitalist countries. We present data on the average annual rates of increase of industrial production in certain countries of the capitalist world in 1950-1957, percentage:

England	2.9
Belgium	4.0
Holland	5.5
Denmark	2.6
USA	3.5
Sweden	2.9

In 1958, industrial production in the member states of the CMEA rose as follows over 1957: Albania 20%, Bulgaria 16%, Hungary 11%, GDR 10.9%, Poland 9.7%, Rumania 9.5%, USSR 10%, Czechoslovakia 11.3%. The higher rates of increase in industrial production are a general law of the development of all these socialist countries.

In a number of the European lands of people's democracy, and in the USSR, the production per head of population of such important types of industrial products as steel, electric power, all the forms of fuel, sulfuric acid, cement and others is substantially greater than the world average, as is indicated by the following data, shown on the following page, for 1956, in kilograms.

	Raw steel	Elec- tricity (kwh)	All forms of fuel, cal- culated as mineral coal	Sulfuric acid	Cement
Hungary	144	529	1,210*	10.3	101
GDR	176	1,760	4,030*	35.0	185
Poland	180	701	3,572	17.0	145
Rumania	44	280	1,570*	5.4	124
USSR	251**	1,028**	2,173	22.0	142**
Czechoslovakia	369	1,254	2,960	32.0	238
World Average	103	634	1,256	15.0	84

* All types of coal, petroleum and natural gas

** 1957

The mighty upsurge in the economy of the socialist governments and the substantial improvements made in the structure of their economies, including the creation of a number of branches of heavy industry, have made for a continuous increase in the deliveries of commodities among these countries, and to a change in the structure thereof. From 1950 to 1957, trade among the socialist countries increased 160%. The overwhelming bulk of the foreign trade of the socialist countries consisted of trade with each other. It is to be emphasized that the increase in the trade of the CMEA countries with each other does not prevent development of their trade relations with lands of the capitalist world. Thus, the trade of member states of the CMEA with the capitalist countries more than doubled from 1953 to 1958.

Bulgaria, in the past an agricultural country, is today taking rapid steps toward socialist industrialization. It is today first of the countries of the Balkan peninsula in production of electric power. Almost as much electric power is produced per head of population in Bulgaria as in Greece and Turkey combined, although the population of these countries is almost four times as great as that of Bulgaria. Today, Bulgaria exports not only agricultural products, but various types of machines and equipment. In 1950, machines and equipment represented only 1.1% of Bulgaria's export, while today, the foreign trade of the republic having almost trebled, the share of these items has risen to 9%.

The Rumanian People's Republic today produces in 63 days as much steel as it produced in all of 1938, and its annual production in that year of machinery, electric power and soda products is today put out in 42, 60 and 75 days respectively. In 1950 to 1958, the share of machinery and other means of production in the republic's export increased from 4% to 11%.

As the result of the upsurge in the economy of Poland, and of the socialist industrialization conducted in that country, the development of economic collaboration with other lands of socialism and also with the countries of the capitalist world, the share of machinery and equipment in the republic's exports increased from 8% in 1950 to 26% in 1958, while in Hungary the corresponding figures were 25% and 39%.

The Soviet Union is giving all-sided aid to the lands of people's democracy in their economic development.

The Polish People's Republic is provided with complete equipment for more than 70 industrial projects by our country. The V. I. Lenin Metallurgical Integrated Plant, with a capacity of 1,700,000 tons of steel per year, was produced in Poland with the technical assistance of the Soviet Union.

The plant capacity of this integrated enterprise is greater than the combined capacities of all the metallurgical plants of pre-war Poland. The USSR has assisted the Hungarian People's Republic in building the Danube Metallurgical Integrated Plant, a plant manufacturing ball bearings, a synthetic rubber plant, an integrated textile assemblage, a clothing factory, and other industrial projects. The Soviet Union is providing complete sets of equipment for 70 construction projects to the People's Republic of Bulgaria. The Soviet Union is providing equipment for the construction and reconstruction of more than 80 enterprises to the Rumanian People's Republic. The technical assistance of the USSR aided in equipping the largest iron and steel works in Rumania, that bearing the name of Georgiu Dej. An integrated non-ferrous metals plant, a tube mill, and other plants have been built with Soviet aid. The Soviet Union is granting significant assistance in the economic and scientific-and-technical fields to the People's Republic of Albania, in which no manufacturing industry existed at all until World War II. During the years of people's power, a textile mill, an oil refinery, a woodworking plant, a cement works, and many other enterprises have been built.

A new form of economic collaboration among the socialist countries, to wit, joint construction of industrial enterprises, and of major thermal and hydroelectric plants, the development of intergovernmental power plants, etc., is playing an ever-increasing role in the economic collaboration of the socialist countries. Thus, Rumania, in collaboration with the GDR, Poland, and Czechoslovakia, is building a powerful paper and pulp mill in Brailov. Rumania and Hungary are jointly rebuilding the soda works at Okna'Mures, etc.

The collaboration of the socialist countries is also progressing in the field of joint development of natural resources. Thus, Poland, the GDR and Czechoslovakia are cooperating in expanding production of Polish coal; Czechoslovakia is participating in the development of natural sulfur in Poland; Rumania and Hungary are conducting joint efforts in utilizing Rumanian natural gas.

Intergovernmental specialization and cooperation in production on the part of the socialist countries will undergo continuous improvement with the introduction of new technology and new materials — various substitutes for metals (primarily plastics) and lightened shapes in machinery — and in accordance with further transition to more modern and highly productive technological processes, etc.

Collaboration in the field of standardization is taking on ever-greater importance with the socialist countries. The bringing into line of national standards, the establishment

of agreed technical indices and specifications in various types of equipment, and as to the assortment and grades of metals, materials, and other products, will facilitate the execution of measures in the expansion of specialization and subcontracting of production, and coordination of the efforts of these countries in the development of the major interrelated branches of the national economy.

The collaboration of the socialist countries in the field of standardization, begun within the framework of the CMEA, is presently being realized by the national organizations of the socialist countries, and has as its object, unification of national standards for the most important categories of industrial products, and primarily for products involved in international deliveries. The joint efforts of the socialist countries in unifying the national standards facilitate further reinforcement of economic collaboration among the socialist countries, and the development of their economies. Work in the unification of national standards is conducted with participation of a broad range of specialists from the ministries, administrations, scientific research institutions, industrial enterprises and engineering societies of the socialist countries. This also facilitates a large-scale exchange of technical and scientific experiences among these countries, as well as of the latest achievements in the fields of science and technology.

The organizations of the respective socialist countries dealing with standardization have adopted agreed recommendations on unification of such important economic standards as allowances and fits in the manufacture of machinery, shapes and diameter sequences, pitch and tolerances in metric threads, grades of quality and structural carbon steel, of dynamo and transformer iron, the assortments of certain types of rolled metal, methods of mechanical and chemical testing of metals, sequences of rated powers, voltages and rpm of electrical machines, etc. The unification of these standards, developed by conferences of the national organizations of the socialist countries on standardization, with consideration for the most progressive indices and specifications proved out in practice, will facilitate interchangeability of products delivered by the socialist countries to each other, and also reduction in expenditures and materials, labor and time on their production. The national organizations of socialist countries in the field of standardization envisage completion, in 1959, of their joint work on unification of many standards for the major forms of metallurgical and machinery products. The work in unification of national standards by the lands of socialism is indissolubly connected with the activities of the standing departmental commissions of the CMEA on the development of intergovernmental specialization and cooperation of production.

Major problems face the CMEA in the light of the new, mighty upsurge in the national economies of the socialist countries. Realization of the plan for the development of the national economy of the USSR from 1959-1965, elaboration and realization of the long-range plans for national economic development of the European lands of people's democracy for the period till 1965 will require a more profound coordination of the economic development of the member states of the Council, and of all the socialist countries.

With the object of the most complete provision, in the long-range plans, for the mutual interests of the member states of the Council, bilateral conversations were conducted in 1958 on mutual shipments of commodities in the years until 1965, and discussions took place of various economic problems involved in the perspectives for the development of the national economies of these countries. The

agreements concluded in the course of these conversations will make for further expansion of mutual commodity exchange, will assist in nailing down the target figures for the long-range economic plans, and are of major significance for the development of the specialization of the branches of their economies during the given period of years. The agreements envisage a substantial increase in mutual shipments of the most important types of products and raw materials. Thus, shipments by the Soviet Union to the member states of the CMEA will be 120% larger in the field of iron ore in 1965 than in 1959, 170% larger in pig iron, 500% larger in petroleum, 150% larger in apatite concentrates, and 120% larger in machinery and equipment. In turn, the lands of people's democracy belonging to the CMEA will substantially increase shipments of their commodities to the Soviet Union. The total volume of the shipments of machinery and equipment of the USSR by these countries will rise 130% over the 1957 level by 1965.

A substantial increase in mutual deliveries will occur between the USSR and Czechoslovakia. Our country will expand the export to Czechoslovakia of certain types of machine equipment, such as coal-mining combines, mining drills, certain types of metal-working machine tools, and of forging and pressing equipment. Czechoslovakia will increase its shipments to the USSR of mobile railway power plants of 2500 kw capacity, of electric locomotives, of special multi-station machine tools, and of equipment for the chemical, textile, shoe, leather and knitwear industries.

A long-term agreement between the USSR and the German Democratic Republic envisages an increase of deliveries from the GDR to the Soviet Union in the years 1959-1965 as follows: chemical equipment — almost three-fold; refrigerator trains — doubled; rolling-mill equipment — 80% increase; calculating machines — 33% increase. There will also be a substantial increase in the delivery of power transformers and machine tools to the USSR. The Soviet Union will, in turn, expand the export of certain types of machine tools, of high power diesel locomotives, and of other types of products of the machinery-manufacturing industry.

Economic ties among the European lands of people's democracy will expand. In accordance with the agreement signed between Czechoslovakia, Poland and Hungary, on collaboration in the field of metallurgical production, based on specialization of production of various types of rolled products, Czechoslovakia will ship various types of merchant bars to Poland in 1961-1965, as well as wire and forgings, while it will ship sections to Hungary, in addition to alloy steel wire, etc. In turn, Poland and Hungary will ship sheet steel to Czechoslovakia.

In the course of the bilateral discussions among the member states of the CMEA, problems were discovered, the examination of which should preferably be conducted on a multilateral basis in the standing committees of the CMEA on economic and scientific-and-technical collaboration. In accordance with the plan of work of the CMEA, it is expected that the following important problems will be investigated within the CMEA: the development of the production of certain types of ferrous and non-ferrous metals, increase in the available supplies of coking coals so as to meet the requirements of the ferrous metals industry in the quantities envisaged in long-range plans for the development of the national economies of the given countries. In this connection, it is planned to pay particular attention to the need to expand the range of coking coals, and also to introduce more advanced technology in coking. The standing commission of the CMEA on economic and scientific-and-engineering collaboration in the field of construction

will elaborate recommendations on problems of development, in the member states of the CMEA, of the production of new types of building materials, including materials based on the utilization of chemical raw materials. These recommendations will form the foundation of proposals on the introduction of these materials into construction practice. The CMEA will witness the further elaboration of problems involved in unification of the electric power systems of member states of the CMEA, and mutual delivery of electric power for superior servicing of the requirements of the various countries. It will also examine problems having to do with the complex utilization of the hydroelectric plants, drainage systems and irrigation systems. The CMEA will give major attention to the problems of development of rational international specialization in agriculture. Of no little importance will be solution of the problem of transportation relationships among these countries to meet the rapidly growing requirements for shipment of export and import freights. One of the primary objectives in this respect will be the rational distribution of flow of freight among various types of transport.

The development in the standing commission of the CMEA on economic problems, of proposals on utilization of the method of economic balances, could be of major importance in realization of rational international specialization and subcontracting of production in the period ahead. It is believed that balances of material will assist in determining desirable directions in the social division of labor among

the socialist countries. A major role in solution of problems of social division of labor among the socialist countries will also be played by the elaboration of a number of methodological problems, including methods of comparing value indices. This would make possible a correct approach to solution of problems of economic efficiency of international specialization and subcontracting.

The socialist countries have a clear perspective for their development. This perspective was given a profound theoretical foundation in the report of Comrade N. S. Khrushchev to the 21st Congress of the Communist Party of the Soviet Union. In speaking of the further development of the lands of the socialist camp, Comrade N. S. Khrushchev emphasized that these countries, making successful use of the possibilities inherent in the socialist system, will pass over to the higher phase of communist society more or less simultaneously.

The more complete the consideration that will be given to the action of the law of planned, proportional development of the national economy and of all the objective economic laws of socialism, the more complete will be the utilization of all the advantages of international socialist division of labor, and the broader and more all-sided will be the economic collaboration and mutual aid among the member states of the Council for Mutual Economic Assistance, and among all the socialist countries and consequently, the more successful will be the development of the socialist countries on the road to communism.

A. Koryagin

The Relationship Between the Rates of Development of Industry and Agriculture in the USSR

Our country is entering the period of all-out upbuilding of communist society in the bloom of its creative powers. During this period the Soviet Union will have a long road to go, will create the foundation for communism in material technology, and will carry out its major economic task. A significant and decisive portion of this road will be traveled as the result of realization of the seven-year plan for the development of the national economy of the USSR in 1959-1965.

A most important problem of the present seven-year plan is guaranteeing high rates and necessary proportions in the development of the country's national economy. Planned, proportional development of the economy is one of the fundamental advantages of the socialist system of economics over the capitalist. It was specifically thanks to planned changes in the structure of production, of the constant realization of the Leninist course favoring the development of heavy industry, that the Soviet Union was transformed into a great world industrial power, capable of successfully solving the most complex problems of scientific and engineering progress, and in possession of everything required to attain victory over capitalism in peaceful economic competition in the briefest possible historical period.

In the resolutions and materials of the 21st Congress of the Communist Party of the Soviet Union, the problem of proportional development of the socialist economy was given further profound elaboration. The seven-year plan provided a new and clear expression of the Leninist general line of the Party giving priority development to heavy industry. Agricultural production will experience a further serious upsurge on the basis of the favored development of heavy industry. During the seven-year plan, agriculture has been faced with the problem of attaining a level of production that will permit complete satisfaction of the needs of the population for foodstuffs, while industry will be provided with raw materials and agriculture will meet all the other of the country's needs for farm produce. This harmonious coordination of the growth of industry and agriculture has been prepared for by all the preceding development of the socialist economy, particularly during the preceding five years.

The building of the socialist economy in our country demanded proportional coordination of the development of industry and agriculture. The major role in the development of the material and technological basis of socialism was that of industry, and primarily of heavy industry. The more rapid increase of the latter made it possible to build a base of modern technology beneath the entire economy. The fact that industrial means of production consist dominantly of public property, and the existence of new, socialist relationships of production opened unprecedented horizons for accelerated development of this most important branch of the national economy.

Even in the years preceding the first five-year plan, the upbuilding of heavy industry was undertaken on a large

scale, the founding of major industrial centers was done, the population of the cities increased, and there was a continuous rise in the demand for foodstuffs and agricultural raw materials. But the development of agriculture in that period sharply lagged behind the growth in industry. Agriculture was based on small-peasant, individual forms of production and primitive techniques, and simple reproduction was more typical of it than expanded. Under the conditions in which small peasant households predominated in the countryside, the production of agricultural produce rose exceedingly slowly indeed. Thus, in 1926-1929, the average annual rate of increase in gross agricultural production was only 0.9%, while the gross production in industry rose by an average of more than 20% in the course of the year.

One of the fundamental contradictions of social reproduction in the transition period from capitalism to socialism was the variety of production relationships existing in the cities and countryside, and as a consequence thereof, a substantial difference in the rates of development of industry and agriculture. This contradiction threatened disorder in the economic ties between industry and agriculture. It was necessary to overcome this contradiction and thus to eliminate obstacles for expanded reproduction in all spheres of the economy. It was essential to bring the relationships of production in the entire national economy into correspondence with the nature of the productive forces. The way out, indicated by Marxism-Leninism, consisted of the coordination of peasant households in production, in the creation of large socialist enterprises in the countryside, capable of utilizing the new technology and the achievements of the science of agriculture. It was only this that made it possible to switch our agriculture onto the tracks of standard reproduction, significantly to change the ratio of the rates of development of industry and agriculture, and to establish the necessary proportions between them. However, in the first years of collectivization of agriculture, this possibility was not utilized to the full.

During the first five-year plan, heavy industry developed at forced rates. The average annual rise in the gross production of industry from 1929 to 1932 was 19.2%, while production of means of production (department A) rose 28.5% per year, and production of consumer goods (department B) rose 11.7% per year. The lag in agricultural production, however, was not overcome. Moreover, there was a certain reduction in its volume. In 1932, the gross production of agriculture was about 90% of what it had been in 1929. Output of livestock produce contracted with particular sharpness. This was caused by a whole number of factors. In our country, a socialist reorganization of agriculture was taking place for the first time in history. There was a fundamental breakup of the old and erection of the new socialist system in the countryside, and this could not but be reflected to a substantial degree in the state of agricultural production. Even Marx had written "When the social

relationships corresponding to a given stage in production have just come into being or are disappearing, it is natural that disturbances in production will occur, although they will differ in degree and in behavior." (1) Further, the lack of experience in carrying out a socialist transformation of agriculture, and violations of the Leninist principle of voluntary entry of the peasant households into cooperatives in certain parts of the country, had their effect. A great deal of harm to agriculture was done by the stubborn resistance of capitalist elements to socialist transformation of the countryside.

The Soviet Union was one socialist country and existed under conditions of hostile capitalist encirclement. It was necessary to overcome the technological and economic backwardness of the country as rapidly as possible, to strengthen its defense capacity, to concentrate all forces on the development of heavy industry and its determining branches — metallurgy, machinery manufacture, etc. All this had a good deal to do with predetermining the very substantial difference in the rates of increase of heavy industry, on the one hand, and of the light and foodstuffs industries and of agriculture on the other.

During the second and third five-year plans (1933-1940), the major successes in the development of heavy industry, the equipment of the collective farms with new technology and the reinforcement thereof in the sense of organization and administration, resulted in a change in the ratio of the rates of growth of industry and agriculture. During the second five-year plan (1933-1937), the average annual rate of increase in gross production of industry was 17.1%, while in the three pre-war years of the third five-year plan (1938-1940), it was 13.2%. The production of means of production (department A) rose by an average of 19% per year during the second five-year plan, and by 15.3% during the third, while the production of consumer goods (department B), increased respectively, by 14.8% and 10.1%. As these figures show, the spread between the rates of increase of heavy and light industry diminished by comparison to what it had been during the first five-year plan. Agricultural production also moved forward. The gross production of crop and cattle raising in 1937 was 53.9% greater than in 1932. The process of gradual approximation of the rate of growth of industrial and agricultural production began, and better conditions came into being for the harmonious coordination of the rates of socialist reproduction in town and country, and for improving the living standard of the people.

However, in the pre-war years, the lag of agriculture behind industry was not overcome. The comparatively large increase in the gross production of agriculture during the second five-year plan served, to a considerable degree, merely to compensate the drop in the level of agricultural production during the first five-year plan. The years 1938 to 1940 were not favorable to a further rise in socialist agriculture. War was on the horizon, and this naturally drew off ever-larger resources for strengthening the country's defense capacity.

During the years of the great patriotic war, deep wounds were inflicted on our agriculture. The temporary occupation of a considerable territory by the enemy, the destruction he wrought, and the mobilization of the resources of materials and personnel for war led to a pronounced reduction in the volume of agriculture, while after the war a certain period was required to restore agriculture to its pre-war level.

Despite the enormous difficulties arising out of the socialist reorganization of agriculture, the war and the liquidation of the consequences of the latter, our agriculture demonstrated its superiority over capitalist and small-

commodity producing agriculture. Over the 23 year period — 11 pre-war years (1930-1940) and 12 post-war years (1946-1957) — the average annual rise in the gross production of agriculture in the USSR was 4.3%, while in the United States it was 1.2% over the same period of time. Consequently, the increase in agricultural production in our country took place approximately 3.6 times as fast as in the USA.

However, it must be borne in mind that the average annual rates of increase in agricultural production in the USSR over the entire period under examination greatly lagged behind the rates of increase in industrial production. During 11 pre-war years (1930-1940) and 11 post-war years (1947-1957), the volume of industrial production increased by an average of 16.2% per year, and that of agriculture by a little more than 4%. Over this entire period, the rates of increase in agricultural production were exceedingly uneven. During the first five-year plan, as we have seen, the volume of production climbed, while during the remaining pre-war years, production rose. During the war, the volume of production again declined, during the first post-war years it was restored to its pre-war level, then increase slowed down, and only during the past five years has a sharp rise in agricultural production taken place.

In the years preceding the September, 1953, Plenum of the Central Committee of the Communist Party of the Soviet Union, a clearly unhappy situation developed in our agriculture. It is true that the collective and state farms healed the deep wounds inflicted by the war, but further increase in agricultural production was slowed by serious violations of the principles of socialist management and guidance of agriculture. In 1952, industrial production was 130% greater than in 1940, but that of agriculture (in comparable prices) was only 10% higher. From 1950 to 1953, the average annual rise in gross agricultural production was 1.6%, while the average annual rise in industrial production was 15%. This ratio of the rates of increase of industrial and agricultural production was pregnant with serious consequences for the further development of the entire socialist economy.

In describing the spread between the rates of development of industry and agriculture, Comrade N. S. Khrushchev stated at the December, 1958, Plenum of the Central Committee of the Communist Party, "A definite lack of correspondence developed between the development of industry and agriculture, and between the actual needs for grain and other products by the government, and their real levels of production. This divergence carried the possibility of serious consequences. It could have inhibited further rise in socialist industry, improvement in the living standards of the working people, and the advance of our country to communism, and this in the long run would have weakened the economic power of the Soviet Union and the entire socialist camp. Consequently, the problem of overcoming the lag in agriculture, and the need for a sharp upsurge therein was not only of internal but of international significance."

The Communist Party decisively exposed the shortcomings and distortions of policy that had existed in the leadership of agriculture. It defined the most pressing problems of development of agriculture, elaborated a program for steep improvement therein, and performed an enormous organizational and political job in heading the struggle of the mass of the people for the realization of this program.

Little more than five years have elapsed since the December, 1953, Plenum of the CC of the CPSU. The efforts of the entire Soviet people, led by the Communist Party, have resulted in overcoming the backwardness of agricultural production. The rates of development have risen sharply.

In 1954 to 1958, the average annual rate of increase in agricultural production in our country has been more than 3%. This is more than four times as high as the rates of development of agriculture in the United States during the same period. In recent years, the Soviet Union has significantly surpassed the United States in rates of progress in cattle raising. From 1953 to 1958, the average annual rate of increase in production of meat has been 6.2% in the USSR, and about 1.3% in the USA, while the corresponding figures for milk are 9.6% and 0.9%. The production of wool in the Soviet Union rose by 6.4% per year, while in the United States it did not increase during this period. Egg production also remained static in the USA, while it rose by an average of 7.9% per year in the USSR.

As the result of the rapid rise in agricultural production in our country, a substantial change took place between the rates of increase in industrial and agricultural production. Whereas the average increase in industrial production during the four years of 1950 to 1953 was about 15%, and that of agricultural was 1.6% (a ratio of 9 to 1), during the period 1954 to 1957, these figures were respectively 11.5% and 7.1% (the ratio being 1.6 to 1). Thus, the very large spread between the rate of development of industry and agriculture previously existing was overcome.

During the past five years, a serious change has taken place in the development of our agriculture. In 1958, 3.5 billion poods of grain were procured, or in other words 1.6 billion poods more than in 1953. During the last five-year

plan, the average annual production of grain rose by 39% over the preceding five-year plan, that of sugar beets by 68%, and that of raw cotton by 20%. The production of meat (with consideration for increase in the herd of cattle) rose 40% from 1953 to 1958, that of milk by 60%, that of eggs by 50%, that of wool by 40%, while fine and semi-fine fleece rose more than 100% in production. On this basis, there was a pronounced expansion of procurement of agricultural products, permitting improvement in the supply of foodstuffs to the population, and of agricultural raw materials to industry. Socialist agriculture moved firmly onto a path of sharp upturn.

The level of development attained, and the ratio between the rates of growth of the two most important branches of the socialist economy — industry and agriculture — today assure successful advance of all branches of our national economy. During the coming seven-year plan, it is proposed to bring the rates of development of industry and agriculture even closer together, while preserving priority growth for heavy industry, and of production of the means of production, relative to production of consumer goods. The average annual increase in industrial production during the seven-year plan will be approximately 8.6%, and that of agriculture about 8% (ratio of 1.1 to 1).

The production of the most important types of agricultural produce at the end of the seven-year plan will be as follows (in millions of tons):

	1958	1965	1965 as percent of 1958
Grain harvest (billion poods)	8.5	10-11	118-129
Raw cotton	4.4	5.7-6.1	130-140
Sugar beet	54.1	76-84	140-155
Potatoes	86.1	147.0	171.0
Meat (dressed weight)	7.9	Not less than 16	200.0
Milk	57.8	100-105	173-181
Wool (thousands of tons)	321.0	About 548	170
Eggs (in billions)	23.5	37	157

The ratio between the rates of growth of industrial and agricultural production that have currently come into being, and are planned for the seven-year plan, signify harmonious development of all the branches of the socialist economy, and progress along the path of realization of the major economic task of the USSR. We know that we used to speak of the problem of catching up with and surpassing the most advanced capitalist countries in production per head of population, pertaining only to industrial output. With regard to agricultural output, solution of this problem was, as it were, referred to a more distant future. Today, when the lag in agriculture has been overcome, the problem of economic competition with capitalism is posed differently. As the result of fulfillment of the seven-year plan, the Soviet Union will, in the absolute level of production of some major forms of products, surpass, and in others will approximate the present level of production in the USA. Moreover, the production of the most important agricultural products in toto and per head of population will exceed the contemporary level of the USA. The superiority of the USSR in the rates of growth of production, and the harmonious coordination of the development of industry and agriculture will provide a real foundation for overtaking and surpassing the USA in

production per head of population within approximately five years after 1965. This will assure the population of the USSR the world's highest living standard and will be a triumph for socialism in the economic competition with capitalism of significance to world history.

It is understood that the ratio between the rates of increase in industrial and agricultural production advanced above is not constant or optimal for all subsequent periods in the development of the socialist economy. The proportions between departments 1 and 2 in socialist production, between heavy and light industry, between industry as a whole and agriculture as a whole, will undergo definite changes in the course of the upbuilding of communism, depending upon the specific historical conditions of the country's development. At all stages in the upbuilding of communism, the production of the means of production must enjoy favored and priority growth over the production of consumer goods. Industry must also develop more rapidly than agriculture. Lacking this, a continuous expansion of the scale of socialist production, and improvement therein, on the basis of advanced technology, a constant increase in the output of consumer goods, and an improvement in the living standard of the people are impossible. However, the

degree to which this faster rate obtains cannot be static.

At the present time, the approximation of the rates of growth of industry and agriculture is the closest in the entire history of socialist upbuilding. The need for this approximation is explained by the fact that industry, and heavy industry in particular, has hitherto developed much more rapidly than agriculture. Over a long period, the bulk of the production of heavy industry went to the further development of this same branch of production. Today, there has been a significant change in this respect. The relationships that have now developed between departments 1 and 2 of socialist production are such as to permit an ever-increasing scale of supply of machines, equipment, and raw materials both to heavy industry itself and to light industry and agriculture. This will serve as a foundation in material technology for a combination of rapid rates of increase of heavy industry and of industry as a whole, with an accelerated upturn in agricultural production.

As already indicated, the rates of increase of industrial and agricultural production during the current seven-year plan will approximate each other very closely. Later, however, when agriculture has solved the problems it faces today, and when the population will have an adequate supply of foodstuffs, and industry an adequate supply of agricultural raw materials, it would appear that the need will arise for a still more rapid rate of increase of industrial production over that of agriculture than obtains today. This lead will be the foundation of a continuous upturn in the production of material wealth as a whole, and for improvement in the well-being of the working people.

Industry will always retain the leading role in the steady advance of the socialist economy. In recent years, our agriculture has been supplied with hundreds of thousands of tractors and millions of various types of machinery. The government has appropriated enormous funds for the development of agriculture. The Party has reinforced the state and collective farms with leaders, as well as with agricultural specialists. The restoration of the principle of material incentive to the collective farmers in increasing production and in increasing labor productivity, introduction of new procedures for the planning of agriculture, the opening of tens of millions of hectares of virgin and idle lands, the reorganization of the machine and tractor stations, the development and carrying out of a new system of procurement of agricultural products, all are related to a reinforcement of the leading role of industry, and of general public property in the development of the socialist economy. In turn, the steep upturn in agriculture has made possible a serious improvement in supply of foodstuffs to the urban population, and of raw materials to industry, and consequently an expansion of the basis for the further growth of industrial production. Conditions have been established for more normal compensation for all the components constituting the social product as a whole, and for a more fully planned coordination of the development of all branches of the economy and the culture of our country. During the current seven-year plan, industry will provide all the needed prerequisites in material technology for accelerated development of socialist agriculture. This will make it possible for industry, and particularly for branches of light and the foodstuffs industry, to advance very substantially.

One of the decisive conditions for the fulfillment of the objectives of the seven-year plan in the field of the development of agriculture is the all-out expansion of mechanization and electrification of production, and the further equipment of collective and state farms with modern technology. During the seven-year plan, industry will deliver more

than one million tractors, about 400,000 harvester combines, and a large quantity of other machines and equipment to agriculture. The provision of electricity to all collective farms, state farms, and Repair and Equipment Stations will be essentially completed. The manufacture of mineral fertilizers will approximately treble. There will be a significant expansion in all-round mechanization of agricultural production as developed in accordance with the needs of the various zones of the country.

Today, the objective of increasing labor productivity, of reducing expenditures of labor and funds per unit of production is in the foreground in agriculture. In level of labor productivity, Soviet agriculture still substantially lags behind that of the USA. Today, labor productivity in American industry is between two and two and one half times higher than ours, but in agriculture it is about three times as high. Collective farm production lags farthest behind in level of labor productivity. Thus, comparable expenditures of labor in man-hours per centner of grain are 80% higher in Soviet state farms than in American farming, but in collective farms it is 7.3 times as great. Per centner of sugar beets the corresponding figures are 4.2 and 6.2 times, while for raw cotton the figures are 60% and 130%, for milk 110% and 210%, for centers of weight gained by cattle the difference is 6.6 and 14.2 times, etc. Therefore, the seven-year plan envisages a more rapid increase in labor productivity in the collective farms. The target figures for 1959-1965 envisage an approximate doubling of labor productivity in the collective farms, and an increase of between 60% and 65% in the state farms.

An increase in labor productivity in agriculture requires not only a quantitative rise in technical equipment, but the development of new, more advanced and economical machines, and large-scale requirements of the technology now on hand in the collective and state farms. In a number of branches of agriculture (the raising and harvesting of sugar beets, potatoes, cotton, livestock farming, etc.), the outlays of manual labor are still exceedingly high. Industry is faced with the duty of launching large-scale production primarily of machines whose use will make possible the replacement of heavy manual labor. Our industry faces a problem of creating machines for complete mechanization of cultivation of the cotton plant, the sugar beet, the potato and vegetables. Along with replacement of trailer-type agricultural tools by higher-output and less metal-consuming attached tools, it is necessary to create a series of machines to mechanize labor in the final stages of grain production. A considerable saving of labor would be provided by mechanization of loading and unloading, and transport operations, of haying and the baling of straw, of drainage work, peat digging, the production of lime and other local fertilizers, etc.

The increase in labor productivity in agriculture depends greatly upon further improvement in utilization of equipment. The reorganization of the machine and tractor stations, the change in the procedure for servicing collective farms with productive equipment, the concentration of tractors, combines and other agricultural machinery directly in the collective farms have opened perspectives for a steep improvement in the efficiency of utilization of productive capital, and for increased savings of concrete and abstract labor in agricultural production. It is necessary that each collective farm establish a correct system of accounting of wear and tear on equipment and of prompt replacement of equipment that goes out of service due to physical wear and obsolescence and that properly justified standards for consumption of materials and the like be established. Today, both our agriculture and industry are in

a position to an ever-increasing degree to utilize the replacement fund for purposes of expansion of social production.

As the result of the rapid rise in collective farm and state farm production, procurement of agricultural products will increase substantially. Thus, purchases of raw cotton are planned to rise by 30% to 40% in 1965 over 1958, while the figure for sugar beets is 59%, for oil seed is 36%, for potatoes 74%, for flax fiber 37%, for live fowl and cattle on the hoof 96%, milk 84%, wool 72% and eggs 120%. The scale of grain purchases is planned to be set at somewhat above the level of planned purchases for 1958. This increase in procurement of agricultural products will further subsequent growth in the light and foodstuffs industries, and will increase the living standard of the population.

The problem of harmonious coordination of the rates of growth of industry and agriculture is indissolubly linked to that of further improvement in socialist relationships to production. The resolution of the 21st Congress of the Party notes that "With the growth in the forces of production, there must be a further improvement in socialist social relationships, based on comradely cooperation, friendship and mutual aid." It is precisely the relationships of production obtaining under socialism that create conditions for accelerated development of the productive forces in town and country.

Each year, the positive influence of the reorganization of the forms of management of industry and construction carried out by the Party and the government become more manifest. It would be wrong to think that the changes in these forms pertain solely to the sphere of management. Measures of this kind affect a broad range of ties existing in production, that is, the production relationships of human beings. The reorganization of management on the territorial principle, accompanied by a consistent reinforcement of the principle of centralized guidance and planning, will make for a further development of the social nature of labor by promoting more profound specialization and expansion of cooperation in production, a complex development of the country's economic districts, combination of types of production, etc. All this will doubtless be of vast importance in accelerating the growth of industrial production, for as Marx and Engels wrote "The level of development of the productive forces of the nation is manifested most clearly in the degree to which the division of labor is developed herein." (2)

The new forms of ties in industrial production will facilitate an ever-greater development of creative initiative and activity on the part of the broad masses of the people in the struggle to increase the technical level of production, and labor productivity.

The improvement in socialist relationships of production will manifest itself in improving the forms of payment to labor and in increasing the material interests of personnel in the results of production, in reducing the spread between the low and high paid groups of workers, in developing the principles of cost accounting, etc. All this will constitute an important condition for accelerating the development of the productive forces in industry.

In agriculture, the change in the system of planning, the reorganization of the machine and tractor stations, and the new system of servicing the collective farms with production equipment, the change in the system of procurement and prices, and other measures taken by the Party and the government will facilitate the development of initiative and activity on the part of the collective farmers, improvement in the forms of payment to labor, strengthening of material incentive to the collective farmers in the development of social production, introduction of the principles of cost accounting in collective farm production, etc. Along with rise in collective farm production, there will be a rise in its degree of socialization as reflected in increase in indivisible capital and change in the structure thereof, in diminution of the role of the farmers' private plots, in development of inter-collective farm relationships in production, and in unification of government-owned and collective-farm-owned means of production. These processes will signify approximation of collective farm and cooperative property to general public property, and improvement in production relationships in the countryside. This will open an ever-greater horizon to the development of the productive forces of agriculture.

The planned coordination of rates of growth in industry and agriculture, and the improvement of the entire system of socialist production relationships will find expression in expansion of the production ties between industry and agriculture, in further development of economic circulation, and in gradual elimination of the existing differences between town and country.

The harmonious coordination of the development of industrial and agricultural production will accelerate the development of the foundation for communist society in material technology.

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A. Zhdanov

Modernization of Equipment – An Important Objective of the Seven-Year Plan

The 21st Congress of the Communist Party of the Soviet Union has outlined a grandiose program of all-round development of the country's productive forces, the realization of which will be a decisive step in the creation of the basis for communism in material technology, and in the fulfillment of the basic economic task of the USSR.

A fundamental problem in the forthcoming seven-year plan is acceleration of the development of the national economy on the road to communism, and a maximum gain in time in the peaceful economic competition between socialism and capitalism. The rapid growth in production during the seven-year plan will be assured by progressive changes in the structure of social production, and by a sharp rise in the technological equipment of all branches of the national economy.

The target figures for the seven-year plan of the development of the national economy of the USSR from 1959 to 1965 confirmed by the 21st Congress of the CPSU envisage high rates of development of the manufacture of machinery and tools – the foundations for technological progress in all fields of production. During the seven-year plan, the production of the machinery-manufacturing and metal-working industries will rise approximately to twice their present level. This will permit equipment of the metallurgical, the chemical, the petroleum, the gas, the coal, the electric power, the light, the foodstuffs, and other branches of industry with the very latest in high-output machines, will enable mechanization of labor in agriculture to be raised to a new level, will permit realization of technological re-equipment of railway transportation, and an increase in the level of machinery available to labor in the machinery-manufacturing industry itself. Further expansion of the volume of production of machinery and equipment will be a most important condition for fulfilling the objectives of the seven-year plan with respect to increasing labor productivity in industry by 45% to 50% per worker and even more if one considers the reduced length of the working day.

The seven-year plan provides not only for construction of new industrial enterprises and the equipment thereof for the most advanced technology, but large-scale fundamental reconstruction, expansion and technological re-equipment of existing enterprises, accompanied by the extensive replacement and modernization of the equipment on hand. In many fields, and particularly in the processing industries, this will be the basic change in improving the technological level of production during the seven-year plan. Modernization of existing equipment is called upon to play an enormous role particularly in the manufacture of machinery.

By modernization is meant the re-equipment of the existing machines and machine tools so as to give them the design advantages inherent in new models of machines, and to increase the labor productivity of the workers using modernizing machines and machine tools to the level attained in the operation of machines of more modern designs, built for the same purpose. The result of modernization is an

increase in the labor productivity of the workers, a growth in the volume of production with the same total volume of equipment in operation and the same number of workers. Production costs decline, profitability rises, the service life of equipment is extended before obsolescence, and funds that would otherwise have been expended in the replacement of obsolete equipment by new equipment would be saved.

Despite the obvious desirability and great significance to the economy of modernization of existing equipment, it did not receive the necessary attention until quite recently. In our opinion, this was for the following reasons.

In the first place, the long-range and annual plans did not set specific objectives in modernization. In essence, the determination of the volume of modernization work was left to examination by the managements of individual enterprises. The target figures for the development of the national economy from 1959 to 1965 emphasized the significance of this important problem. It appears desirable to us that the annual plans of the respective national economic councils and enterprises, compiled on the basis of the target figures, provide precise definition of the scales of work in modernization of equipment.

In the second place, inter-departmental barriers, which eliminated the possibility of centralized, specialized manufacture of details and parts required for modernization, had a negative effect upon the development of this activity. This considerably increased expenditures upon this work and cast doubt upon its economic desirability. Thanks to the organization of industrial management on the territorial principle, by means of national economic councils, this artificial obstacle has been eliminated. Today, socialist industry has everything it needs for a sharp reduction in expenditures upon modernization, and for improving its economic efficiency.

Finally, the incorrect concept, that only the "very latest" equipment can meet the problems of building communism, a concept that got a certain distribution in economic literature, had an inhibiting effect upon modernization undertakings. The assertion that the only road to technical progress is installation of specimens of the most advanced technology, is lacking in all foundation, inasmuch as it is impossible, immediately after the development of new models, to undertake mass replacement of all equipment of a given type. In practice, views of this kind inevitably resulted in underestimation of the enormous internal resources for improvement of the technological level of production available to enterprises in socialist industry.

A most important criterion of the economic efficiency of technological progress is reduction in the expenditures of social labor per unit of output. Economic results can be obtained not only by introduction of the very latest and most modern equipment, but by modernization of existing obsolete equipment, if social labor will be economized thereby. Modernization results in improving the production

and technological qualities of equipment. Although this does not, as a rule, yield the technological level of the best machines in the given field, modernization nevertheless permits a substantial increase in labor productivity. Of particularly great significance is the planned realization, on a large scale, of modernization of equipment in the manufacture of machinery, where out-dated machine tools and machines represent a substantial proportion of the whole, and replacement thereof would require enormous expenditures, while there is a very great need for increase in the output capacity of the equipment. Let us present some calculations descriptive of the economic efficiency of modernization of the available metal-cutting machine tools — the major group of equipment in the machinery-manufacturing and the metal-working industries.

The Institute for Experimental Research into Metal-Cutting Tools has, jointly with enterprises in the machine-tool manufacturing and tool-and-die industries, developed standard designs for modernization of metal-cutting machine tools produced in this country. The major objectives in modernization of machine tools, used as guide-posts in the development of these plans, are: increasing the level of mechanization and automation, and facilitating operation of the machine, broadening the range of rpm and of feeds, increase in service life, easing the labor of the workers, improvement in the precision of the machine tools' operation, and increasing the length of period during which they can run without being re-set.

Realization of these plans will result in increasing the productivity of various groups of machine tools from 15% (grinders) to 35% (gear cutters). If the share of various categories of metal-cutting machine tools be considered in the over-all total on hand, it appears that modernization permits an average improvement of 25% in the output per machine tool. This means that the increased productivity of each five modernized machine tools is equivalent to the installation of one new one.

The carrying-out of modernization of the existing supply of metal-cutting machine tools will make possible, in the first place, a significant increase in the volume of output in machinery-manufacture. Proceeding from the percentage of machine tools requiring modernization to the total number in use, and the total gross output of the metal-working industry in 1956, it is possible to calculate the volume of additional production capable of being attained by modernization of metal-cutting machine tools. This comes to a figure in excess of 4 billion rubles. Even at the enormous scale of our present industrial production, this is quite a significant figure.

The calculations advanced are arbitrary to some degree, inasmuch as the production of the machinery-manufacturing industry is the result of the work not only of the machining, but of the blanking, assembly and other shops. Therefore, in order to obtain the increase in production indicated above, it is necessary, in addition to modernization of metal-cutting equipment, for a corresponding expansion of the capacities of all the other departments to take place. At any rate, modernization will make it possible to do away with the production of that number of new metal-cutting machine tools which would be required for expansion of the volume of production if the existing equipment were maintained at its present technological level.

According to approximate calculations, the output of 4 billion rubles of additional goods per year would require the manufacture and installation of a large number of metal-cutting machine tools, to a total value of more than a billion rubles. This would require expansion of manufacturing areas in the machine-manufacturing industry by about

700,000 square meters, and that in turn would cost about 400,000,000 rubles. Consequently, modernization of equipment would free about a billion and a half rubles of capital investments (for construction of additional production areas, for purchase and installation of machine tools), which could then be directed to other branches of the national economy. This would save a considerable quantity of the metal that would be necessary for production of new machine tools, and also of building materials.

Improvement in the design of equipment would make for an increase in the productivity of the labor of workers in metal-working industries, and would thus result in a reduction in the cost of production. As has been indicated above, the average increase in the productivity of the labor of workers employed on metal-cutting machine tools would rise by 25% as result of modernization. If, as is envisaged in the seven-year plan, about 4% of the available equipment be modernized per year, labor productivity of machinists would be increased by an average of 1% thereby. We know that workers operating metal-cutting equipment represent, on the average, about 25% to 30% of the total number of workers in the machinery-manufacturing industry. Thus, an increase in the labor productivity of all the workers in the machinery-manufacturing industry by modernization of metal-cutting machine tools would be, on the average, about 0.25% per year ($0.01 \times 0.25 = 0.0025$).

Modernization of machine tools would permit a considerable reduction in the cost of production both by increase in the labor productivity of the machinist and, primarily, by increasing the volume of production. We know that a portion of the shop expenditures, and virtually all factory-wide expenditures, are practically independent of increase in volume, and remain constant in absolute value. These expenditures come to 20-30% of the total expenditures for production in the machinery-manufacturing industry. If the volume of production be increased 25% only by reduction of the constant expenditures per unit of product, cost would be reduced by not less than 4%. Annual modernization of 4% of the machine tools on hand, and a corresponding expansion of the capacities of the remaining departments in machinery-manufacturing enterprises, would thus bring about a reduction in the cost of production by savings of fixed costs of about 0.2% of cost of production per year. Under present forms of price-formation, when the profitability of production in the machinery-manufacturing enterprises are usually taken to be within 3% of cost, reduction of the latter by increasing the volume of production and by saving in fixed outlays would permit an increase in profits to 3.2%, or in other words, an 8% to 10% rise in profits.

All these calculations are based on data on the volume of production in the machinery-manufacturing industry in 1956. With the rise in the scale of output of gross and commodity production, all the indices of economic efficiency of modernization calculated above (savings in capital investments, growth in labor productivity, and reduction in cost), will improve. By approximate calculations, in 1965 — the final year in the seven-year plan — the additional increase in production due to modernization of the available metal-cutting machine tools and corresponding expansion of other shops in the machinery-manufacturing and metal-working enterprises, will attain about 10 to 15 billion rubles.

As noted in the speech of the Vice-Premier of the USSR, F. R. Kozlov, at the 21st Congress of the CPSU, about 400,000 machine tools are to be modernized during the seven-year period. This will yield an economy of up to ten billion rubles during the seven-year period, based on

an average improvement in the output of each by 25%. The cost of modernization will be about 2.8 billion rubles.

Analysis of the possible economic efficiency of modernization of metal-cutting machine tools testifies to the enormous significance to the national economy of this trend in technological progress in the manufacture of machinery. The modernization of the equipment of machinery-manufacturing enterprises at the present stage in the upbuilding of communist society presents itself as a major task for the national economy, the realization of which will create conditions for the most rapid achievement of the objectives posed in the seven-year plan. However, cases are not infrequent in practice, when modernization of individual machines and machine tools is performed in accordance with plans that do not assure utilization of all the possibilities inherent in this highly-efficient trend in technological progress in the manufacture of machinery.

At many plants, the economic efficiency of modernization is often confused with elevation of the indices of the technical characteristics of the machine tool. The opinion is widespread among industrial personnel, and particularly among designers, that an elevation of technological indices of the machine increases its economy in operation. It is believed, for example, that an increase in the range of rpm and of machine-tool feeds will itself justify modernization. The erroneousness of this view is evident. However, many industrial personnel do not believe it necessary to concern themselves with calculation of economic efficiency, believing that comparison of the technical characteristics of a machine tool before and after modernization is adequate to justify this being done. Let us cite certain examples.

The second government bearing plant modernized an internal grinder, with the result that its productivity rose by 15%, but the cost of modernization was 9,131 rubles. A new machine tool, the ZA-240, having the same qualities attained due to modernization, cost only 15,100 rubles. The same plant modernized three finishing lathes, the output capacity of each being increased 15% thereby. The cost of modernizing the three lathes came to 38,000 rubles, yet the sale price of all three together is 35,400 rubles. At the Likhachev Plant, a T2-150 drilling machine was modernized. The sale price of this machine is 16,900 rubles and the cost of modernization was 50,000, or in other words, three times as high as the initial cost of the machine. The result of these outrageous expenditures was to increase the productivity of the machine by a total of 20%.

This kind of modernization, it will be understood, does not in any way correspond to the problems advanced before Soviet industry by the seven-year plan. The chase after improved technological characteristics without consideration of the expenditures and the economic results obtained by modernization can only harm the national economy. Expansion of the scope of modernization work on equipment now in service as envisaged by the target figures of the seven-year plan requires elaboration of scientifically-founded methods of determining the economic effectiveness of this measure. In solving the problem of the volume of work to be done in modernizing the existing machine tools at a given enterprise, and of the objectives, nature and sequence of modernization of various groups and types of machine tools, one must base oneself on accurate calculations of the saving of social labor attainable as the result of the given modernization undertaking.

In determining the economic efficiency of modernization of a given machine under the concrete conditions existing at some particular plant, the present method of calculating the efficiency of installation of new technology cannot be employed. This is because of the special features of

accounting and financing of work in modernization of equipment, which consists of the fact that expenditures for such purposes, do not, under the existing system of accounting, increase the book value of the fixed capital. Thus, for book purposes, expenditures on modernization are not capital investments. As far as new equipment is concerned, its economic efficiency is, in accordance with present constructions, determined on the basis of calculating the time required to amortize capital investments. Consequently, for book purposes, the economic efficiency of modernization of equipment under the existing system of accounting for fixed capital, and the financing of expenditures on modernization, cannot be calculated by analogy to determination of the efficiency of installation of new equipment. However, in essence, the method of calculating the efficiency of modernization reduces itself to comparison of expenditures made at a single time with the subsequent savings on current production costs, and in this respect, does not differ in principle in any way from the method of determining the efficiency of capital investments. To the degree that the sources of finances for modernization include, among the most important, bank loans for improvements in production, the criterion of effectiveness of modernization, or what might be called a standard "amortization period," should be deemed to be the length of time required to pay off the credits issued to carry out this undertaking. If the economy from reduction in the cost of production is covered by expenditures upon modernization in the period set by the state bank for extension of credits for measures to improve production processes, modernization should be deemed to be economically efficient. Thus, the economic efficiency of modernization of equipment is determined by the most precise possible calculation of the degree of reduction of cost of production to result from the modernization, and the scale of the expenditures to carry out projects for increasing the technical and economic indices of the work of the given unit of equipment.

The precise calculation of the degree of reduction in cost of production due to modernization of a given machine tool requires solution of a number of problems of method. Universal metal-cutting machine tools, which are the major category subject to modernization, are generally utilized not for some single operation, but for many. It is quite common for parts differing substantially to be machined on the same tool. Modernization of the tool has an uneven effect on reduction in the labor required to perform various operations on this tool, and upon other factors determining the cost of machining. Under conditions when different operations are performed on the machine tool, it would of course be incorrect to base calculations of economic efficiency upon reduction of the cost of that operation with respect to which the given modernization proposal yields the very best results.

It has been found in practice that the most efficient trend in modernization is that of equipping the machinery with gigs and fixtures that will permit specialization of the given equipment on production of some specific operation. Specialization of a machine tool not infrequently makes possible a multiplication of its productivity several-fold. In elaborating and carrying out such modernization projects it is, however, necessary to make a careful study of the possibility of using this machine tool for the operations with respect to which it will be specialized. If these operations will constitute an inadequately high proportion of the total utilization of this machine tool, modernization may prove ineffective.

A correct determination of the direction of modernization of various units of equipment consequently requires

analysis of the possibilities for improving technology in the given section of the plant or shop, and particular attention must be given to possibilities of specializing the machine tools that are to be re-equipped for performance of specific operations. If the conditions of technology and the organization of production make such specialization possible, its economic efficiency should be determined. A carefully developed technology for this operation should be used as the basis for determining the labor required to perform the operation on a modernized machine tool. Underlying the developments of the technological process must be cutting conditions making for the most complete utilization of all the possibilities that the machine tool will be capable of after modernization, and of minimum cost of machining.

The technological process developed in this manner is the starting point for calculation of the scale of reduction of cost of the products (parts, or operations), attainable as the result of modernization. The amount of economy per year will equal the difference in the cost per unit of output prior to and after modernization multiplied by the annual volume of production. If it is not possible to keep the given machine tool busy with production of some single part, the machining of which is most efficient thereon, the annual saving is determined by the reduction in the cost of production of all products (parts, operations), run on this machine tool, while the share of each in the total must be carefully worked out, based on conditions of technology and organization of production in the given department or section thereof.

In many cases, calculation of reduction of cost of production of manufacture of parts on a modernized machine tool may be limited to analysis of changes in the following cost components: 1. wages of production workers; 2. cost of power for driving the machine; 3. wear of tools and gages; 4. amortization of the machine tool; 5. costs of maintaining the machine tool; 6. costs of current repairs. The analysis has to be more profound when modernization of the machine tool is such as not only to reduce the labor requirement for work performed on this machine tool but is accompanied by changes in the technology of the preceding or subsequent operations or serves to eliminate a bottleneck and to increase the general level of production of the plant. For example, if the result of modernization is to increase the precision of operation of a lathe, the need for rough grinding is thus eliminated, the cost of this operation has to be included in the total economy for modernization of the lathe. Another example. The total capacity of boring mills at a plant is 15% to 20% smaller than that of other groups of machine tools, and this has a restraining effect upon increasing the volume of production. Thanks to modernization of the boring mills, it proved possible to increase their productivity by 10%, and thus to increase the volume of production by the plant. In this case, the economy yielded by reduction in the cost of machining on the modernized boring mills must be supplemented by the economy from reducing the cost of the total production of commodities by reduction in the fixed costs per unit of output.

In connection with the problem of accurate accounting of reduction in cost of production resulting from modernization of equipment, it is necessary in our opinion to pose the problem of correct calculation of amortization in the cost of products manufactured on modernized machine tools. In present practice, the modernized equipment is entered into the books on the basis of its initial book value. It seems to us that this practice is economically unfounded. After all, the process of modernization of equipment changes its technical characteristics and its productivity, and causes it to

be shifted from the category of obsolescent equipment into that of modern machinery. Utilization of modernized machines, as well as introduction of new ones, provides an increase in the labor productivity of the workers, and improvement in the output capacity of the enterprise, reduces cost of production, etc. All this is obtained thanks to the expenditures upon modernization, which, regardless of the form of financing, do constitute capital investments in their economic essence. However, the book value of fixed capital does not increase as a result of modernization. Thus, cost of production is reduced, and the economic efficiency of modernization is artificially inflated. In order to eliminate the distorting influence of the present practice of entering fixed capital into the books upon the indices of economic efficiency of modernization it would, in our opinion, be more correct, when calculating cost of production manufactured on modernized equipment, to reckon amortization not on the basis of the initial cost of the machine, but on the cost of the machine whose technological level has been improved thanks to modernization.

To determine the economic efficiency of modernization, the economy due to reduction in cost has to be compared with costs for re-equipment of machinery. These expenditures are made up of the cost of materials, semi-finished products, and finished sets of products needed to modernize the given machine, as well as of the wages of the repair workers, and overhead.

Both calculations of the value of these expenditures at the stage of development of the plan of modernization may be made in accordance with standards covering a combination of factors. However, at the stage of development of the technical process, the method to be used is that of direct calculation of the cost of the work on each element taken separately, in accordance with the modernization project. This last must include a list of the products, assemblies and mechanisms to be replaced, as well as the calculation of the labor required for the work in improvement of the assemblies and mechanisms which it is not intended to replace by new ones.

The practice of operations at the most advanced enterprises testifies to the existence of substantial possibilities for economies in each of the components of modernization expenditures. Thus, combination of work on modernization with performance of major overhaul substantially reduces wage costs, particularly in the field of the work of machining and assembly that would be required if the modernization were not conducted during the process of capital expenditure.

The following approximated calculation shows how efficiently work on modernization and major overhaul can be coordinated. In conducting major overhaul, the average time requirement per unit of repair complexity is 54 standard hours,* of which 30 standard hours, that is, more than 50%, goes to machining and assembly. If the average complexity of the capital repair of the machine tool is 10 repair units, the total labor requirement for major overhaul is 540 standard hours. Taking the average grade of workers engaged in major overhaul as 5.5, and the wage scale of repair machinists of this grade at 2 rubles 63 kopecks, we find the wage expenditure, plus taxes, on major overhaul of a single machine tool to be 1,420.2 rubles. To the degree that machining and assembly operations for major overhaul and modernization are identical, it may be held

* See A Unified System of Preventive, Planned Repairs and Operation of Industrial Equipment in Machinery-Manufacturing Enterprises (A Standard Set of Rules), Machinery Press, 1957, p. 20.

that reduction in the cost of modernization of the machine tool by combining this work with major overhaul would be equal to the wages paid for machining and assembly. The cost of this work under the present wage scale is 789 rubles (300 standard hours at a scale of 2 rubles 63 kopecks). The saving on modernization expenditures when this is done simultaneously with major overhaul is due not only to labor costs, but also to savings in cost of materials, and in departmental and general plant costs. Over-all, the saving due to combination of modernization and major overhaul of metal-cutting machine tools in USSR industry is tens and hundreds of millions of rubles per year. These funds can then be directed to further expansion of productive capacities in the most important branches of the national economy.

Along with saving in concrete labor, a major role in reducing the cost of modernization work is played by reduction, in every possible way, of the parts and assemblies needed for this. The economic essence of modernization lies in the fact that it provides an increase in the technological level of the existing supply of machine tools to the level of new equipment, and does so at lower cost than if new equipment is acquired. We know, however, that the cost in price of a new machine is determined on the basis of conditions of serial and mass production. If modernization of the available equipment is based on individual plans drawn for each individual machine tool, and is performed under the semi-handicraft conditions obtaining in repair shops, its cost will be substantially greater than that of new machine tools. However, new equipment cannot be manufactured in the scale required for mass replacement of the entire existing supply. This is what gives rise to the need for correct organization of work to modernize and also for proper major overhaul of equipment.

The new forms of industrial management and the availability of standard plans for modernization of equipment permit centralization of planning, and the carrying out of modernization undertakings on the scale of the entire economic administrative districts.

The problem consists primarily of organizing appropriate planning of modernization undertakings. In our opinion, the national economic councils should, on the basis of well-founded calculations made in the enterprises, com-

pile a plan for modernization of equipment for the economic district as a whole, and for the individual enterprises, and should monitor the fulfillment of this plan on a day-to-day basis. The existence of such a plan would make it possible to discover needs for assemblies and mechanizations required for modernization, and to organize specialized production thereof on a scale large enough to satisfy the needs of the entire district. In the necessary cases, production of these assemblies might be organized on the basis of inter-district cooperation. In addition to specialized production of these parts, it is necessary to give thought to the question of setting up specialized repair teams that would carry out standard modernization projects.

Inclusion of quantitative modernization quotas in plant plans, quotas based on careful technological and economic calculations, would make it possible to create correct organizational forms for the carrying out of this important economic problem, and will raise the interest and the responsibility of the enterprises in elevating the technical level of the available machinery. We believe it desirable, at least at the outset, to establish a procedure in which fulfillment of modernization plans would be equated, as far as material incentives are concerned, with fulfillment of the production program.

The experience of forward-looking plants shows that realization of economically well-founded modernization projects improves the available equipment, lengthens the service life of machine tools prior to obsolescence by five or six years, raises labor productivity, frees substantial capital investments, reduces costs, and improves the profitability of the machinery-manufacturing industry. Generalization of the advanced experience accumulated by enterprises and economic councils, and the provision to practical workers of scientifically-founded principles for estimative economic efficiency of modernization of equipment, as well as of elaboration of problems of planning and organization of modernization work, are major problems for economics. Their solution, in the shortest possible order, will facilitate the carrying out of the magnificent objectives of the seven-year plan, and will accelerate technical progress and the rate of upbuilding of the material and technological foundation for communism in our country.

*A. Zaytsev and F. Dronov****Problems of Material Incentives in Government-Owned Enterprises†**

The land of Soviets has entered a new period in its development, the period of all-out upbuilding of a communist society. The historic 21st Congress of the CPSU has confirmed the target figures for the development of the economy of the USSR from 1959 to 1965, envisaging a sharp upswing in the level of production of industrial and agricultural products, and the further flourishing of science and culture in the Soviet socialist society.

Successful performance in over-fulfillment of the grandiose objectives of the seven-year plan requires not only every possible strengthening of social and moral stimuli to labor, but complete utilization of the principle of material incentive to the collective personnel of enterprises and to each individual worker, to stimulate social production. Consistent application of this principle is a direct requirement for complete realization of the advantages of the socialist economic system. A proper system of material reward to collectives of industrial enterprises, based on a scientific foundation, is required to facilitate mobilization of available internal resources, to accelerate the growth of output, to reduce its cost and increase labor productivity.

An important form of economic rewards to enterprises operating under cost accounting is the enterprise fund, employed for improving the cultural and living conditions of the workers and for improvement in production. The annual volume of this fund was over 2.4 billion rubles for the national economy as a whole in 1957. These very substantial funds, set aside for material stimulus to the total personnel of plants, can, if properly utilized, serve as a norm of stimulus for growth and perfection of production. However, the practice that has grown up with respect to

formation and expenditure of the plant fund has a number of shortcomings that reduce the efficiency of its effects on the development of socialist production. What are these shortcomings? The plant fund is based on fixed deductions from planned and over-planned profits in enterprises working on the principle of planned profit, and on planned and over-planned savings in costs in plants working on the basis of planned loss, the deductions being established on a differentiated basis for various groups of enterprises. Under this arrangement, enterprises working under a planned loss have to put forth much greater efforts to attain savings by cost reduction, which are essential to forming the enterprise fund, than do profitable enterprises in obtaining the profit needed to form a fund of equal size.

Enterprises functioning on the basis of planned profits are also a long way from operating under conditions of equality. Enterprises with a high rate of planned profit are in a more advantageous position than the others. This also holds for enterprises whose products do not require a great deal of labor. The lower the share of wages to the total production expenditures, the higher, all other conditions being equal, the size of the enterprise fund, per worker. The relationship between the magnitude of the enterprise fund per worker and the labor that has to be laid out for production is indicated in I. Usatov's article "Raise the Role of the Enterprise Fund," published in No. 6 of *Problems of Economics* for 1958. The following data on the results of fulfillment of the plan of 1958, and the building up of incentive funds in a number of enterprises in the Lvov Economic Council, may serve as a further illustration of the inequalities resulting therefrom.

	Planned profit (1000 rubles)	Percent deductions from planned profit	Enterprise fund when plan is fulfilled (1000 rubles)	Number of workers	Fund per worker (in rubles)
Glassworks Number 1	12,800	1	128.0	1,171	109
Shoe Factory	8,457	1	84.6	1,823	46
Clothing Factory	14,743	1	147.4	1,046	140
Bicycle Factory	7,281	2	143.6	1,565	92
S. M. Kirov Confectionery Factory	21,000	1	210.0	690	309

It is evident from the table that when the plan is fulfilled, the enterprise fund per worker fluctuates between 46 rubles (a shoe factory) to 309 rubles (the confectionery plant). This substantial spread is conditioned not only by the fact that the planned profit of the S. M. Kirov Confectionery Works is higher than that of the other enterprises, but chiefly by the fact that the labor requirement for production at the confectionery plant is much less. Whereas wages

represent 20% of the costs of the shoe factory, and 34% of the costs of glassworks Number 1, they are only 3% of the costs at the confectionery plant. It is not surprising that all other conditions being equal, the enterprise fund per worker will be higher here.

Under the existing procedure for forming the enterprise fund, its size is substantially dependent upon factors that are not and cannot be controlled by the enterprise. Changes in prices for raw materials, materials, fuel, for the products sold by the enterprise, lead to corresponding changes

Lvov.

To pose this problem for discussion.

in the size of the fund. True, the present procedure for calculating the fund presupposes consideration of factors not depending on the work of the enterprise, but this accounting is usually conducted only in calculation of the fund derived from profits above plan. Yet these factors, for example, changes in price, affect not only the unplanned, but the planned profit. Thus, the Lvov Automatic Loader Plant made a profit of 32,000,000 rubles in 1955, and, having met the necessary conditions, had the right to form an enterprise fund totalling 1,200,000 rubles (based on a 4% deduction for this purpose). As a result of reduction of prices for its products in 1956, the profit planned for the plant was 6,300,000 rubles, with the result that the enterprise fund would have been cut 252,000 rubles, even if the plan were fulfilled. The work of the enterprise did not deteriorate, yet the size of the fund was sharply reduced. In order to obtain a fund of the same size as in 1955 under the new price structure, the plant would have had either to cut the costs of production by 20% or to multiply output five-fold relative to 1955.

The existing system of forming the enterprise fund stimulates fulfillment of the established plan. However, it does not arouse an interest in the plant in making sure that all the resources and possibilities in its possession be fully reflected in the plans set. On the contrary, the existing system of stimulants objectively leads to attempts by the

enterprises to get reductions in their planned target. This is quite understandable, because the lower the plan, the greater the possibilities of fulfilling and over-fulfilling it, and the easier it is to build up an enterprise fund.

The procedure for forming the enterprise fund should be such that the size of the fund would correspond to quantitative and qualitative indices attained by the enterprise. At the present time, the major criterion for evaluation of the work of an enterprise is fulfillment of the plan in output of production, reduction of costs, and in profit. An enterprise that fulfills and over-fulfills the plan is deemed to be one that works better, and is entitled to a corresponding reward, while a plant that does not fulfill the plan is deemed to be lagging and is deprived of rights to the formation of a fund for issuance of rewards.

However, under conditions in which the production plan is based on the indices in the report for the preceding year, and the plan assignments are changed and refined a number of times — these refinements sometimes being introduced literally a few days before the end of the year — the highest evaluation is sometimes made not of the work of those enterprises that get the best results in their work, but of those which had been assigned the lowest quotas. In confirmation of this we present the following data on fulfillment of plan assignments by a number of enterprises in Lvov Economic Council for 1958, percentage:

	Fulfillment of plan	Increase in output over the preceding year	Increase in labor productivity	Reduction in produc- tion cost
Shoe Factory	109.3	112.5	107.4	4.40
Clothing Factory	106.6	105.4	105.2	0.24
Bicycle Works	98.2	118.5	116.8	4.0
S. M. Kirov Confectionery Plant	106.7	93.4	90.1	1.86

As may be seen from the table, the highest indices in terms of plan fulfillment were those of the shoe and confectionery plants. The actual increase in production over the preceding year was 12.5% at the shoe factory, while at the confectionery plant volume of production diminished by 6.6%. The clothing factory overfulfilled its plan, but the increase in production relative to the preceding year was small, 5.4%. The essence of the matter, was that this enterprise, as well as the confectionery plant, planned a lower output for 1958 than in 1957. It is natural that plans of this order be successfully fulfilled and overfulfilled, and these enterprises acquired the right to form a fund. The best results (of all those set forth in the table of enterprises) were those of the bicycle plant: the volume of production here rose by 18.5%, labor productivity increased by 16.8%, and cost was reduced by 4%. However, the annual plan of this plant was a very tough one, and due to failure to carry out the production program by 1.8%, the personnel at this plant did not have the right to form a fund.

Under the present procedure for deductions from profits into the enterprise fund, greater deductions may be made from profits above planned than from planned profits. This also does not aid in creating an interest on the part of plant management and personnel in developing plans demanding the greatest effort on their part and completely reflecting the reserves for production available within the enterprise. Enterprises strive for reduced plans, so as not only to fulfill but to overfulfill them, to obtain profits

over and above the plan, and to be able therefore to form bonus funds of larger size.

Consequently, the right to receive an enterprise fund and the size thereof depend not upon the absolute results recorded by an enterprise in a given period, but upon the degree of fulfillment of planned objectives, the difficulty of which varies from plant to plant. In the final analysis, the source of the enterprise fund is the increase in accumulations of socialist industry, the foundation for which consists of reductions in costs of production. However, the size of this fund, under the present system for forming it, does not relate to the size of the accumulations actually established in the given plant or factory. This is evident from the following table, shown on page 37, in which economies from reduction of cost in a number of enterprises in the Lvov Economic Council of 1958 are compared to the size of the reward fund.

The question of improvement of the system of formation of the enterprise fund and of increasing its role as stimulus has already been posed in the economic literature. Thus, I. Usatov suggests increasing the differentiation of deduction rates from profits into the fund so that enterprises differing in the ratio of wages to costs and differing in profitability would receive about the same amount per worker. In our opinion, this would somewhat increase the role of the enterprise fund as a stimulus, but would still not eliminate the fundamental shortcomings in the present mode of setting it up, which we have discussed

	Cost reduction, percentage	Savings from cost reduction (thousands of rubles)	Enterprise fund (thousands of rubles)
Glass factory Number 1	8.7	1,546	488
Bicycle Plant	4.0	2,726	—
Automatic Loader Plant	7.6	12,526	1,403
Clothing Factory	0.24	362	265
Bus Manufacturing Plant	12.5	22,546	1,793
Shoe Factory	4.4	3,225	458

above. Moreover, the establishment of rates of deduction from profits into the enterprise fund, with consideration of the ratio of wages to costs, has the shortcoming that such a system would have the objective effect of providing material incentive to enterprises with backward technology and organization of production, where the share of costs going to payment of labor is higher. Comrade Usatov believes that these negative consequences of the system he proposes should not be a cause for concern inasmuch as the personnel of each enterprise would be rewarded for introduction of new technology into production by increased deductions into the enterprise fund from profits above plan. However, there can be no doubt that the scale of deductions from profit into the enterprise fund proposed by Comrade Usatov to occur in accordance with the share of wages in the total expenditures upon production would in many cases be an inhibiting factor in carrying out measures for the mechanization of the processes of production. Finally, the shortcomings of the system proposed by I. Usatov also include a significant complication of the counting involved in formation of the enterprise fund.

It appears to us that a correct system of formation of the enterprise fund should not only provide an economic stimulus for the fulfillment and overfulfillment of planned assignments, but should interest the collective personnel of plant and factory in having these assignments reflect all the internal resources and possibilities to a maximum degree. In our opinion, the enterprise fund can serve as a material stimulus not only in the fulfillment of plans but also in their compilation. If economic stimuli were created for the setting of maximum plans, this would simplify the entire process of planning, render plans more stable, and would place a firmer foundation under their technical and economic rationale.

Under present conditions, when the enterprise is not directly interested in having the objectives planned for it as high as possible, the compilation of plans requires detailed rationale by the superior planning agencies. Agreement on draft plans between the enterprises and the superior agencies gives rise to excessive correspondence on a variety of minor problems of the economics and organization of production, and this distracts plant managements from specific guidance of production, and diverts the attention of the planning agencies from the solution of major problems of centralized planning of importance to the national economy.

There was a time when Soviet economic literature put forth the opinion that the issuance of material stimuli to the collective of an enterprise should be dependent not only and not so much upon the degree of fulfillment of the year's assignments for the volume of production (subject to refinement), as much as upon the degree of fulfillment of qualitative standards over a long period of time. Profitability was listed as of first-rank importance among these qualitative standards. To the degree that the index depends at a given

price level upon the cost of commodity production, the enterprise will be directly interested in finding and in maximum utilization of all internal resources for reduction of costs of production and in increasing commodity output. We believe that if the fulfillment of profitability standards were made the basis for the system of building up the enterprise fund, the shortcomings of the existing practice of material incentives to enterprises would be eliminated to a considerable degree. The enterprises would be interested in establishing maximum plans, and in mobilizing and utilizing to the full all internal possibilities for increasing production, raising labor productivity, and saving material wealth. Refinement and partial reexamination of planned assignments in the course of the year would not affect the scale of the reward fund, inasmuch as, under the proposed system, the latter would be determined not by indices of fulfillment of current plans, but by comparison of the results obtained to standards operative over a long term.

Transition to this system would not present any significant technical difficulties for the majority of enterprises. For all factories and plants, in the development and reconstruction of which no substantial government funds are invested in the current year, the actual profitability for that year can be taken as the standard. In this case, the enterprise fund would be formed from deductions from the total increase in profit over the profit during the base year (or, in enterprises expected to operate at a loss, from deductions from economies due to reduction in cost), inasmuch as this increase in profit (and, correspondingly, saving from cost reduction) is not the result of change in prices, assortment of products, tax rate and other factors, not dependent upon the work of the enterprise. It will be understood that the actual level of profitability for the given year cannot serve as a standard for the calculation of the fund, if the enterprise is being rebuilt or completed, as the data for the report period would not be characteristic of the technical and organization conditions of production during the period ahead. In this case, the standard should be established by calculation and should be high enough to provide a maximum stimulus to the most rapid introduction into normal operation of the new capacities scheduled.

It will be understood that under the current confusion of levels of profitability in various branches, conversion to the system of establishment of the enterprise fund we propose, based upon indices of fulfillment of standard operative over a long period of time, would not assure complete equalization of the conditions determining the level of the incentive fund in enterprises in differing branches of industry, or even within a single industry (for example, machinery manufacturing) if different products are manufactured. Full realization of the advantages of this system would require establishment of economically justified standards of profitability in the industrial branches and for various types of production, and this in turn assumes solution

of the problem of price formation. However, under the existing prices, the system of long-range standards would play a positive role, inasmuch as it would stimulate the enterprise to establish plans completely reflecting all its internal reserves and possibilities.

The problem of what the level of deductions into the enterprise fund from the annual rise in profit should be demands independent study and can be ultimately solved only on the basis of practical experience. It is clear, however, that this percentage must be higher than the standards for deduction from plant profit adopted under the existing system of formation of the fund.

Let us examine the ratio between the level of planned assignment and the scale of the enterprise fund under the existing system and under the proposed system for formation of this fund. Let us assume that the base (standard) indices of the work of the enterprise are as follows: volume of products sold 100 million rubles, cost 80 million rubles, deductions into enterprise fund under existing rules 5% of the planned profit, deductions under the proposed rules — 20% of the rise in profit over the standard (base) level. Let us assume that there are five possible variants of the plan for the coming year, as indicated below:

	Indices for base (standard)	1 Variant	2 Variant	3 Variant	4 Variant	5 Variant
Assigned rise in production, percentage	—	0	5	10	15	20
Assigned reduction in cost, percentage	—	0	2	4	6	8
Sales volume (million rubles)	100	100	105	110	115	120
Cost of production (thousand rubles)	80,000	80,000	82,320	84,480	86,480	88,320
Planned profit (thousand rubles)	20,000	20,000	22,680	25,520	28,520	31,680
Enterprise fund under present system (thousand rubles)	—	1,000	1,134	1,276	1,426	1,584
Growth of profit (thousand rubles)	—	0	2,680	5,520	8,520	11,680
Enterprise fund under proposed system (thousand rubles)	—	0	540	1,100	1,700	2,340

Under the existing system of formation of the fund, the first variant would be the most profitable for the enterprise. With minimum effort (quantitative and qualitative indices remaining at the previous year's level), the enterprise gets a fairly large incentive fund. This fund does rise with increase in production assignments, but very slowly. Thus, when the assignments for growth in production and reduction of costs are doubled (variants 2 and 3), the volume of the reward fund rises from 1,134,000 rubles to 1,276,000 rubles, only 12% in all. Under the system we propose for formation of the fund, the enterprises would be economically interested in having a maximum plan for volume of production and reduction in cost, as the absolute level of the fund increases in rising progression as these objectives increase. This will make possible improvement in the compilation of production plans, will result in better founded plans, and will facilitate an increase in the rates of growth of production, an increase in labor productivity, and a reduction in cost, as well as an increase in accumulations in the national economy.

As may be seen from the table presented above, the use of the system we suggest will lead to an increase in the absolute level of the enterprise fund. This will serve as a stimulus to further expansion of production and improvement of the qualitative indices of the work of the enterprise. In addition to this, increase in the role of the enterprise fund will make possible reinforcement of the stimulation influence of the material sanctions levied upon enterprises failing to live up to their obligations to customers, credit agencies, railways, etc. We know that fines, penalties, forfeits and other sanctions have a very minor influence upon the financial condition of enterprises under the present system of payment thereof. They are either written into costs, or covered out of the profit of the enterprise, which means that in the long run there is a reduction in the share of the fund going to the national treasury in the form of deductions from profit. This is explained

by the fact that many factory managers don't particularly care much when faced with the need to pay fines for holding up freight cars, for failure to return containers, or forfeits for failure to fulfill contracts under subcontracting arrangements. The situation would change very fundamentally if these material sanctions — fines, forfeits, penalties — were paid not out of profits but out of the enterprise fund. The economic responsibility of each enterprise for fulfillment of various obligations would under these conditions directly touch the interests of the workers, office personnel, engineers and technicians. An increase in responsibility would have a positive role in the carrying out of plans for deliveries under subcontracts. We know that some economic councils often limit the production of some products to the needs of their own economic administrative districts, although this damages the interests of the country as a whole. A successful struggle with localist tendencies in the work of some economic councils demands, along with measures of governmental disciplinary action, superior utilization of economic stimuli in the form of material incentives.

An absolute increase in the dimensions of the reward fund, and an increase in its role in the economy of the enterprise, would make it possible to straighten out accounts pertaining to loans from the State Bank for installation of new equipment. These loans are supposed to be paid off from the extra profits made due to the introduction of new equipment. However, inasmuch as, under the existing system, there is only an indirect relationship between the size of the enterprise fund and profits, factory management very often takes a completely irresponsible attitude to providing economic justification for the efficiency of measures for which the State Bank provides credits for the introduction of new equipment. Loans are paid off from profits regardless of the source of these profits, that is, in actuality by reducing the funds payable to the national treasury in the form of deductions from profits. It is not

uncommon that loans for introduction of new machinery are used to carry out measures that either yield no profit at all, or yield a very negligible profit when compared to the expenditures. A completely different situation will obtain if the paying off of loans for introduction of new technology were to come not out of profits but out of the enterprise fund. Enterprises would be interested in carrying out economically justified measures for introduction of new technology, inasmuch as these measures would increase profit, and consequently, would make possible an increase in the incentive fund. When inadequately efficient measures are carried out for introduction of new equipment, the material damages suffered would be borne not by the government, not by the national treasury, but by the individual enterprise.

The realization of the principles set forth above for formation and utilization of the enterprise fund might also serve the more rapid increase in output of production, reduction in costs, and increase in labor productivity. It would bring into operation many hidden reserves for production, and would thus accelerate the fulfillment of the magnificent objectives posed in the seven-year plan.

Another important form of material incentive to workers, office workers, engineering-and-technical workers, and managerial personnel of enterprises and business institutions is the issuance of bonuses. Bonuses are paid out for fulfillment of the production program, as well as for specific qualitative production indices (for example, for savings of raw materials, materials, fuel, for increasing labor productivity, introducing new equipment, etc.). Bonuses are applied for rewarding individual workers, and also to reward entire collectives of workers and office workers (sections, departments, and enterprises). The various forms of bonuses create a material interest on the part of the workers not only in the results of their personal labor but in improving the indices of operation of a given collective or of the enterprise as a whole.

The issuance of bonuses is widely employed at the present time in all branches of the national economy: in industry, in transportation, agriculture, and commerce. The monetary funds paid out as bonuses to workers, office workers, and engineering-and-technical personnel come to very considerable sums. Thus, bonuses exceed 4% of the total wage fund paid out in Soviet industry, and are more than 12% of the salaries received by engineers and technicians. There are some industrial enterprises where bonuses play an ever larger role. For example, the following are the bonuses that were paid out in 1958 at the Lvov Automatic Loader Plant: 1,740,000 rubles to workers on time rates (over 30% of the basic pay), 207,000 rubles to piece workers, and 678,000 rubles to engineering-and-technical personnel. In addition, the workers, office workers, and engineering-and-technical personnel were paid 1,207,000 rubles from sources not entering into the wage fund, or a grand total of 3,832,000 rubles, which is nearly a thousand rubles per person employed, as an average. At the Lvov Bus Plant, during the same year, the bonuses paid out to workers on time rates came to 1,185,000 rubles, or 28% of the basic pay, while that to workers on piece rates came to 882,000 rubles, that in the form of bonuses to engineers-and-technicians came to 1,824,000 rubles, and that from sources not in the wage fund came to 882,000 rubles, or a grand total of 4,373,000 rubles, which also comes to more than 1,200 rubles per worker employed.

Despite the large scale on which bonuses were granted, the efficiency of many of the bonus systems and of many of the types of bonuses now in effect is comparatively low.

To begin with, it is necessary to note the multiplicity of

bonus systems and the various types of bonuses. In industry, for example, the granting of bonuses to some personnel may be based on decrees by the Cabinet of the USSR on payment of bonuses to managerial and engineering-and-technical workers in enterprises, or on the rules for bonuses based on the results of the nationwide socialist competition, or the rules on the enterprise fund, or the rules on bonuses for development and introduction of new equipment, the rules on bonuses for rationalizing inventions and improvement, and the rules on the economic council (or ministry) funds. As a result, one and the same person frequently gets a number of premiums from various sources for the same work.

The basic function of the existing bonus systems is to stimulate fulfillment of the plan in terms of the volume of output. This is particularly true of bonuses to managerial and engineering-and-technical personnel, of bonuses based on the results of the national socialist competition, and of bonuses granted to the enterprise fund. This direction of bonus systems is of major significance in mobilizing the personnel of enterprises to struggle for the most rapid and efficient fulfillment of the plan. At the same time, this gives rise to many negative phenomena.

The premium system now in operation has inherent in it the same shortcoming as the system for formation of the enterprise fund examined above. Objectively, it results in a situation in which the managerial and engineering-and-technical personnel are interested in the establishment of underestimated production plans.

The present system of bonuses, under which the only condition for payment of the bonus is fulfillment of the plan for volume of production, may lead to large and, in our opinion, unjustified expenditures of monetary funds. Thus, for example, if the plan is fulfilled 99%, the managerial and engineering-and-technical personnel receive no payment. However, if the enterprise fulfills the plan 100%, or in other words, yields 1% more production, these same categories of personnel receive premiums ranging from 15% to 37% of their salaries. If the plan is overfulfilled, salaries and premiums will increase to a considerably greater degree than production. Moreover, the fulfillment of the plan establishes the right to set aside an enterprise fund, which may attain 5% of the annual wage fund. Further, the enterprise may obtain a bonus from the economic council fund, and a bonus based on the results of the socialist competition. Thus, a comparatively negligible increase in production (from 99% to 100% of the plan) enables an enterprise to receive considerable, and not always justified, economic benefits. The expenditures involved in the granting of bonuses do not in this case pay for themselves by further increase in production and accumulations payable to the government.

We contend that the system of bonuses at industrial enterprises can be sharply improved if all the bonus systems and forms of bonus payment are unified. The source of rewards to individuals and to the collective personnel of enterprises should be a unified bonus fund created from the enterprise fund, and the establishment of this fund should be based on the principles set forth above. The payment of bonuses from wages or other centralized government monies is, in our opinion, undesirable, as in this case there is no direct relationship between the total bonus paid and the economy derived as a result of the work of the collectives to which bonuses have been paid. Under the procedure we suggest, the source of bonuses would be the real savings recorded by the collective of the enterprise.

The formation of a unified bonus fund, under the control of the enterprise, would significantly improve distribution

of premiums among individual workers. It would consider that the activity and organizational capabilities of managerial and engineering-and-technical personnel are, to a substantial degree, responsible for success in the operation of the enterprise, a substantial portion (let us say 15%, 20% or 30%) of the total bonus fund should be set aside for bonuses for this category. It is necessary to increase the role played by the enterprise itself in the awarding of bonuses. The managerial personnel, the party and trade union organizations should themselves be making the decisions as to who precisely should be granted a bonus, for what, and in what sum.

Of high significance in stimulating production is the payment of bonuses to workers and office workers. Creating an additional incentive to the entire collective in achievement of the best possible indices of operation can serve as a highly-efficient method of solving the economic, technological, and organizational problems of improving production at the enterprise.

At the present time, the issuance of bonuses to workers and office workers applies primarily to personnel paid on a time basis, and this makes it possible to provide a closer relationship between the results of the work of the given individual and his level of earnings.

Employment of the time-plus-bonus system where piecework is impossible for technical or economic reasons, justifies itself in the main. However, it should be observed that excesses are sometimes found in the use of this form. There are some enterprises where artificial bonus systems are in force. For example, bonuses are sometimes granted for cleanliness in the department, for work without accident, for elimination of scrap, that is, for indices the performance of which is not a reflection of some special merit on the part of the personnel, but falls into the category of their direct responsibilities. It goes without saying that it would be incorrect to apply a single yardstick and not to make a specific analysis of the conditions of work of various operations in solving the problem of the conditions under which bonuses are necessary and those in which they are undesirable. Here, it is necessary to grant broad initiative to the enterprises. The leaders of enterprises, who bear responsibility for their work jointly with the public organizations, may themselves select the most desirable form of bonus payments in accordance with the concrete situation obtained at the given enterprise. Excesses will be eliminated if the granting of bonuses to workers and office workers on time payment will be based on a single bonus fund coming from the enterprise fund. This will, on the one hand, create an interest in reduction of cost and increase in output on the part of the management, while on the other it will make possible purposeful and effective utilization of the bonus fund.

Aside from individual premiums paid to workers and office workers in accordance with their individual accomplishments, it would in our opinion be desirable to establish at first, at least as an experiment, collective premiums which would be shared out to each person at the

enterprise. A specific portion of the bonus fund should be set aside for this purpose.

It might at first glance appear that this kind of impersonalized bonus payment, not directly related to individual achievements on the part of the persons receiving the bonuses, would be inefficient and would not correspond to the socialist principles of distribution. However, the existing experience in collective piecework at a number of enterprises shows that this type of payment does not weaken but on the contrary stimulates the material interest of workers in the results of their work, if we regard these results as being not merely the earnings of the individual worker, but the fulfillment of all planned objectives by the team or subsection. We think that forms of collective reward are applicable to bonus payments as well. This kind of bonus payment would create, on the part of each worker, regardless of the position he occupies, or the work he performs, an interest not only in his personal successes, but in the progress of the entire collective of the enterprise. This would contribute to the development of an atmosphere of intolerance toward shortcomings and unbusinesslike behavior of any kind, and would increase the interest of the collective as a whole to an ever greater degree in the achievement of the best production indices. The payment of this type of premium might be made quarterly or annually in equal sums to each worker and office worker, or in proportion to their wages or salaries, depending upon the results of the work.

The use of long-term standards for formation of the enterprise fund and the setting aside of a portion of this fund as the single source of bonuses to workers, management, and engineering-and-technical personnel places the scale of premiums and other forms of material reward in direct relationship to the results of the work of the enterprise, and will further strengthen the material interest of the workers of socialist industry in the development and improvement of production. This would serve as an important source of fulfillment and overfulfillment of the objectives of the seven-year plan, and particularly of objectives in reducing the cost of production. "... The matter at issue," said Comrade N. S. Khrushchev at the 21st session of the Communist Party of the Soviet Union, "is that of organizing a crusade really embracing the entire people against all manifestations of unbusinesslike behavior, extravagance, and an attitude of negligence toward the public wealth. It is necessary to improve the responsibility borne by management for the betterment of all qualitative indices of the activity of enterprises and construction projects, particularly for reduction of costs and improvement of quality. It is necessary further to reinforce cost accounting in industry, construction, transportation and agriculture."

We contend that discussion of the ideas put forth above and the practical realization of measures to improve the methods of material accumulation of the collectives of industrial enterprises will facilitate the carrying out of the problems advanced by the Party.

B. Dyushaliev *

Toward a New State of Economic Development

The resolutions of the 21st Congress of the Communist Party of the Soviet Union have provided a profound Marxist analysis of the world historic triumphs of the Soviet people and have outlined new magnificent objectives for the up-building of communism in our country. The general line of the Communist Party based on priority development of heavy industry and the attainment of an unabated growth of the material and cultural living standard of the Soviet people receives clear reflection in these decisions. The Congress demonstrated a triumph of Leninist nationality policy, which has assured the unprecedented flourishing of the economies and cultures of all the brother union republics.

Kirgizia is one of the younger constituent republics. It was founded in 1936 on the basis of elevation from the status of an autonomous Soviet socialist republic to a constituent Soviet socialist republic.

The great October socialist revolution liberated the Kirgiz people as it did other peoples of our country, from social and national oppression and guaranteed it government independence, and a happy life in the brotherly family of the peoples of the Soviet Union.

In freeing the working people from exploitation, and from all forms of social inequality and class oppression, the October revolution led to solution of one of the most complex of social problems — the national question. Historical experience has shown that only socialism is capable of assuring elimination of all national privileges, and the complete equality of rights of peoples, as well as the unconditional right of nations to self-determination. As the result of the consistent carrying out of the programmatic demands of the Communist Party on the national question, the world's first socialist state came into being and developed as a free union of nations based on mutual respect, confidence and close collaboration of free and equal peoples.

The realization of true national equality, as the result of the triumph of socialism in our country, was an event of world historic significance. Under capitalism, the complete equality of nations is impossible. Even under conditions in which the ruling classes and the governments of the capitalist states are compelled to make concessions to national minorities in the form of the granting of national autonomy, this autonomy is truncated and, what is most important, under the dominance of capitalist relationships of exploitation, all equality is a legal fiction, as it does not affect the real economic relationships among nations.

In the Soviet Union, the proclamation and unswerving enforcement of the principles of equality of nations in all fields of public life constituted the prerequisite for elimination of factual inequality on the level of economic and cultural development of the various peoples, inherited from czarist Russia. In the dark prison of peoples that Russia was under the czarist regime, the level of economic and cultural development of the various peoples inhabiting the country was so greatly different that the declaration of the equal rights of nations, despite the vast importance of this

declaration itself, did not solve the national question. Lenin pointed out that one of the most important tasks of the proletariat after the triumph of the revolution is the granting of aid to backward and oppressed peoples in the transition to democracy and socialism. (1) The solution of the national question in socialist society leads inevitably to elimination of the real differences in the level of development of the economy and culture of the individual peoples.

Under the leadership of the Communist Party, which is consistently struggling both with manifestations of bourgeois nationalism and with tendencies to great-power chauvinism, this tremendous task of nationality policy has been completely resolved. The formerly oppressed and backward nations of pre-revolutionary Russia have, in the years of Soviet power, with the brotherly support of all the peoples of the USSR, and primarily of the great Russian people, scored exceptional successes in the development of their economy and in the upsurge of their culture. Thus, as a result of the consistent realization of the general line of the Party for socialist industrialization, and unswerving execution of the Communist national policy, large-scale industry was created in Kirgizia during a brief span of years. As early as the first and second five-year plans (1928-1937), industrial production was gotten underway here on a wide scale. In 1940, industrial production was nearly ten times as great as in 1913, while in 1958 it was almost 50 times as great. Such new branches of industry as non-ferrous metallurgy, of petroleum recovery, machinery manufacture, electric power production, sugar refining, shoe manufacturing, etc. have been established. Today, Kirgizia has more than 500 large factories and plants.

During the years of Soviet power, the Kirgiz people have achieved tremendous successes in the development of agricultural production. Before the revolution, a backward, extensive nomadic pasture land type of stock raising predominated. Today our republic has developed, many-sided, mechanized socialist agriculture. About 15,000 tractors (measured in 15 horsepower units) and 8,000 trucks work in its fields. The sown acreage has almost doubled over 1913. The structure of the croplands has fundamentally changed. Acreage under grain has increased 40%, that under cotton by 250%. About 32,000 hectares are occupied by plantings of the sugar beet, which was not cultivated at all in Kirgizia before the revolution. Substantial land masses have been placed under medicinal poppy plantings, tobacco and other cultures. The number of sheep and goats have risen almost 140% over 1916, and that of large cattle 40%. In recent years, new, highly-productive breeds of cattle have been developed and widely disseminated: the Alatau breed of cattle, the Kirgiz fine-fleeced sheep, and the new Kirgiz strain of horses.

Agricultural production has developed at particularly rapid rates in the republic since the September, 1953, Plenum of the Central Committee of the Communist Party of the Soviet Union, which set down an extensive program for the growth of agriculture in our country. In 1958, milk production in Kirgizia was 160% higher than 1953, wool 140%, and sugar beets 150%.

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The Kirgiz people have recorded major triumphs in cultural progress. In the past, the Kirgiz did not have a written language. There were not more than two literate persons in every hundred. In 1914, there were altogether 107 schools in Kirgizia, including only one high school. There were 7,000 pupils in these schools, including only 360 children of Kirgiz. Today, there are 1,750 elementary, seven-year and high schools in the republic, in which there are more than 320,000 pupils. An Academy of Sciences, a state university, a polytechnical, an agricultural, and a medical college have been founded, as well as four teachers' colleges, a physical education college, a number of scientific research institutions, and 31 high schools giving special training of various skills. In 1958 alone, 6,000 persons were graduated from the specialized high schools and higher educational institutions, including correspondence students.

The upsurge of the economy and culture of the Kirgiz SSR sustains the conclusion formulated in the decisions of the 21st Congress of the Communist Party of the Soviet Union, to the effect that, as the result of the consistent carrying out of the Communist nationality policy, and of brotherly mutual aid to formerly economically and culturally backward nationality republics, a powerful modern industry, a large-scale mechanized agriculture, a large network of educational institutions, scientific and cultural and educational institutions have been developed, and numerous highly-skilled personnel have been trained.

The seven-year plan for the development of the economy of the USSR from 1959 to 1965 is a new and striking expression of the Leninist nationality policy, which provides broad possibilities for the all-round development of the economy and culture of all the people. The seven-year plan envisages a tremendous increase in the economies of all the constituent republics. Moreover, as indicated in the resolution of the 21st Congress of the Communist Party of the Soviet Union, "Priority development in each republic will be given to those branches of the economy for which the most favorable national economic conditions exist, so as more effectively to utilize the resources of each republic and to assure a correct combination of the interests of the individual republics and of the Soviet Union as a whole."

Under the seven-year plan, the rates of increase in productive forces planned for the Eastern districts are greater than for the USSR as a whole. More than 40% of the total volume of capital investments will be directed here. This will result in a substantial increase in the weight of the Eastern districts, and among them the nationality republics of the East, in all-Union production of the most important types of products. Major qualitative changes, connected with accelerated development of the leading branches of industry, will take place in the economies of the Eastern districts in the forthcoming seven-year period. Agriculture too will rise to a new level in all these republics, and specialization therein will take place.

The seven-year plan corresponds completely to the Party's programmatic demand that planned, proportional development of the national economy be assured, and that all the socialist nations of our country advance in step toward communism.

These positions of principle, flowing from the essence of the Leninist nationality policy and reflecting the laws of development of the national economy during the period of all-out upbuilding of communism, are manifested to the full in the seven-year plan for the development of the economy of the Kirgiz SSR.

The total volume of gross industrial production in Kirgizia will increase 120% during the seven-year plan, while

for the USSR as a whole, industrial production will rise 80%. Not only major quantitative changes, but serious qualitative shifts are envisaged in industrial production in Kirgizia. In essence, such new branches of industry as the gas, chemical, automotive and electrical engineering, instrument manufacturing, worsted fabrics, cotton textiles and refined sugar production will be started from scratch.

At the present time, coal plays the leading role in the fuel economy of Kirgizia. It is planned that fundamental changes take place in the structure of production and consumption of fuel in the republic during the seven-year plan on the basis of priority development of petroleum and gas recovery and the most economical forms of fuel. Their share in total fuel consumption will rise from 22.7% in 1958 to 61.5% in 1965. During these years, petroleum production will rise from 490,000 tons to a million and a half tons.

Utilization of the gas that is produced in the republic will be the basis for the creation of a chemical industry. A large-scale provision of gas to towns and industrial settlements is planned for the southern district.

The provision of gas to the northern district of Kirgizia from the Bukhara deposit along the pipeline now being built from Tashkent through Chimkent to Dzhabul, Frunze and Alma-Ata will have enormous influence upon improving the structure of fuel consumption in the republic. This will make it possible to dispense with importation of coal from Karaganda and Siberia to the north of the Kirgiz Republic. Non-ferrous metallurgy will undergo a further development in Kirgizia.

One of the "bottlenecks" in the republic's economy is the supply of electric power. The production of electrical energy is now chiefly in the hands of small power plants. The share of Rayon wide power plants in total power production was only 37% in 1958. Kirgizia lagged behind the other constituent republics in production of electric power per head of population. In 1957, electric power production per head of population in Kirgizia was little more than a third of the average for the USSR.

To overcome the lag of the power base behind the growing needs of the national economy, it is proposed to start the operation of a number of large stations (a heat-and-power station in the city of Frunze, and in south Kirgizia, the Uch-Kurgan hydroelectric plant on the Naryn River, of 160,000 kw capacity). In addition, the Turgen hydroelectric plant and the Przhevalsk thermal power plant (6500 kw capacity) are to go into operation in northern Kirgizia. The current seven-year plan is to see completion of the construction of transmission lines to provide electricity to Dzhalal-Abad, the Frunze-Bystrovka-Rybachye and a number of other lines to provide electrical energy to non-ferrous metals enterprises and the coal industry.

The launching of additional capacities will result in a 170% rise in power output from 1958 to 1965, a rate of increase substantially faster than the growth of industrial production in the republic. The development of electric power will make possible an increase in power consumption by 150% in industry, and by more than 300% in agriculture, as well as a sharp increase in the supply of electric power for civic and service purposes. The provision of electricity to all collective farms, Repair and Equipment Stations and state farms will be completed. The production of electric power per head of population will increase substantially from 1958 to 1965. However, it will still be lower than the average for the USSR. The power supply will remain quite a bottleneck to the republic during the seven-year period. The problem of supply of electricity to the rapidly-growing Kirgiz economy will not be resolved in full until

the present seven-year period has ended.

Major changes are occurring in the structure of the machinery-manufacturing industry of the republic. Special attention will be given to the development of the manufacture of electrical machinery. The production of motors will multiply five-fold over the 1958 level, and the output of low-voltage electrical equipment will rise rapidly. An automotive assembly plant, the first in Central Asia, will go into operation in the city of Frunze during the seven-year period.

Along with the creation of new branches, substantial developments will take place in the existing machinery-manufacturing enterprises. The production of lathes in 1965 will be more than 50% greater than in 1958, that of pickup presses will double, and starting in 1960, the production of a new type of attached pickup presses will begin, to replace the trailer type now in use. The organization of production of centrifugal pumps will be of major significance to the republic. The over-all gross production of enterprises in the machinery manufacturing industry will increase 140% during the seven-year period.

In order to assure the development of the economy and culture of Kirgizia set forth by the seven-year plan, the scale of capital investments has been set at ten and one half billion rubles, or 130% more than during the preceding seven years. The volume of construction and erection will rise by more than 160%.

In connection with the large volume of construction, a highly-developed building materials and construction industry will be needed. The money to be invested in these branches of industry will be 320% greater than in the years from 1952 to 1958. There will be a sharp rise in the production of reinforced concrete fabrications and parts, chiefly from new plants and sites. At the end of the seven-year period, the output of assembled reinforced concrete structures and parts will rise 640%. In connection with the launching of a new cement factory, the republic's production of cement will increase substantially. Two silicate block plants each having a capacity of 60 million pieces of conventional brick per year, a plant manufacturing reinforced concrete panels, and a number of other enterprises manufacturing building materials will be erected in the years 1959-1965. The total volume of gross industrial production in the building materials industry will rise 320% from 1958 to 1965.

During the current seven-year plan, it is intended to complete the all-round mechanization of labor-consuming jobs in industry, to provide machinery and mechanisms to the construction sites, and to improve their use. About 200 million rubles are being appropriated for acquisition of construction machinery, mechanisms, and means of transport for the construction of organizations of the Kirgiz economic council and the construction ministry.

The development of branches of heavy industry will provide the basis for expansion of the production of consumer goods. It should be observed that the capacity of the light and foodstuffs industries of the republic does not provide for complete utilization of agricultural raw materials locally available. This results in irrational cross-hauls. Thus, about 50% of the leather goods produced in Kirgizia, and 95% of the wool and cotton fiber produced there was shipped out of the area in 1957. At the same time, 60% of the requirements in leather shoes, nearly 100% of the cotton textiles and more than 90% of the wool fabrics consumed were imported from the other constituent republics. Kirgizia still lags behind the other constituent republics in the production of consumer goods such as cotton, wool and silk fabrics, and leather footwear.

During the current seven-year plan, the light and foodstuffs industries will undergo considerable development. The volume of capital investments in these branches will be more than four times as great in 1959-1965 than during the preceding seven-year period. The first worsted fabric plant and shoe factories in Central Asia will be erected in the city of Frunze. It is planned to build a cotton textile and a leather and footwear integrated enterprise in southern Kirgizia, and to build a factory making knit outerwear in the Tokanak. The construction of a sugar refinery, slaughterhouse, enterprises for the processing of whole milk products, of butter, cheese and other foodstuffs will be built. All this will provide more rapid rates of production of consumer goods in Kirgizia than in the country as a whole. This will be evident from the following data:

	Rise in production, 1958-1965	
	USSR	Kirgiz SSR
Leather footwear	1.45 times	3.2 times
Woolens	1.65 times	13.7 times
Meat	2.14 times	2.8 times
Butter	1.58 times	2.2 times

The gross production of light industry in the republic will rise 190% and that of the foodstuffs industry 100% during the seven years.

The increase in the output of the light and foodstuffs industries is related to a further upsurge in agricultural production.

The Kirgiz Republic, where livestock is the major branch of agriculture, will play an important role in increasing the country's meat, milk and wool resources. Kirgiz agriculture will specialize, during the coming seven-year plan, in the production of cotton, sugar beets and meat, and in the development of fine-fleeced and semi-fine-fleeced livestock. There will also be a considerable increase in production of grain, particularly of corn, kenaf and hemp, vegetables and potatoes, fruits and grapes. The increases in production from 1958 to 1965 in a number of fields are as follows: sugar beets 20% to 30%, raw cotton 30% to 40%, grain 40% to 60%, meat approximately 180%, milk 120% to 140%, wool 140%, cocoons 120%. It is planned to plant 28,000 hectares to fruits and grapes.

The rise in agricultural production will be assured by expansion of the irrigated area, by increasing the crop yield, by increasing the head of cattle, and its productivity. The years 1959-1965 will see completion of the great Chuy Canal, and the Orto-Tokoy, the Alamedy, the Gugart, the Tortgul, and the Papan reservoirs. The harvesting of sugar beets is planned to be completely mechanized. The head of sheep are to be increased approximately by 80%, that of pigs by 70%, and that of cows by 60%.

In Kirgizia, where the railway network is inadequate, the growth of all branches of the national economy involves construction of highways and the development of automotive transport. During the seven-year plan, it is proposed to open 474 kilometers of highways financed by government investments, and to increase public truck freight almost four-fold.

The years 1959-1965 will see the execution in the republic of a number of measures directed to uplifting the material and cultural level of life of the working people. The wages of the workers and office workers will increase, and the monetary incomes of the collective farmers will rise.

The increase in the effective demand of the population will result in the volume of trade growing by more than 70% during the seven-year period. Housing and civic construction will take on broad scope. For the USSR as a whole, the volume of capital investments for these purposes is to rise by 80% from 1959 to 1965 as compared to the preceding seven-year period, but in Kirgizia the rise is to be between 170% and 200%. Government capital investment alone will build about a million and a half square meters of housing space in Kirgizia, which is about 50% more than was built from 1952 to 1958.

It should, however, be remarked that in view of the full development of the housing and civic economies of Kirgizia, in past years, the great increase in housing and civic construction during the seven-year period will still leave the level of housing in 1965 at a point lower than that of the USSR as a whole. Thus, while it is planned that, in 1965, there be approximately 8.1 square meters per person in the USSR as a whole, in Kirgizia the housing space per person will be from 7.5 to 7.6 square meters. Nor will the problem of satisfying the needs of the republic's population for public services be completely met. The problem of the local Communist Party, government, planning and economic agencies is to utilize internal resources to the fullest to develop the housing and civic aspects of the republic's economy.

Social and cultural construction will expand greatly in Kirgizia in the years 1959-1965. Capital investments in these fields will be 991,000,000 rubles against 405,000,000 rubles during the preceding seven years. This will permit improvement in medical and cultural servicing of the population.

Thanks to the triumph of the socialist revolution in our country and the consistent realization of the Leninist principles

of nationality policy, the peoples of Central Asia have won the possibility, thanks to the brotherly aid of the great Russian people, of proceeding from a semi-feudal system directly to socialism. The Kirgiz people were emancipated from the tortures of primitive capitalist accumulation and capitalist exploitation. The historical fate of the peoples of the Soviet East is a brilliant witness to the all-conquering force of the teachings of Marxism and Leninism, of its tremendous significance for the oppressed nations striving toward freedom and well-being.

As far back as 1920, speaking at the 2nd Congress of the Communist International, V. I. Lenin pointed out that "With the aid of the proletariat of the advanced countries, backward countries will be able to progress to the Soviet system, and also to communism via certain intermediate stages, while bypassing the capitalist stage of development." (2) The entry of the peoples of the USSR into a period of all-out upbuilding of communism serves as a brilliant confirmation of the prophecy of genius made by the great leader and teacher of the international proletariat.

The working people of the Kirgiz SSR, like all the peoples of the Soviet land, are firmly decided to fulfill the objectives of the seven-year plan with honor, and to make their contribution to the realization of the historical program of the upbuilding of the foundation for communism in our country in material technology.

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S. Kutikov

Specialization in Agriculture

(Using the Forest-Steppe as Example)

The objectives of the seven-year plan envisage a new and significant increase in labor productivity in all branches of the national economy, including agriculture. A tremendous role in this respect will be played by specialization of agricultural production on the basis of attainment of the highest indices in increase in labor productivity, in yield per 100 hectares of arable land, and in reduction of cost. One of the most important paths to be followed in the solution of this problem is a correct selection of the leading branches and crops for the most economically effective coordination of all branches under the conditions of specific zones and districts. In this light, the problem of increasing production of sugar beets in a number of oblasts and districts of the Soviet Union is of particular interest. This will make possible a guarantee not only of maximum yield per land unit, but of the production of a valuable industrial raw material. The 21st Congress of the Communist Party of the Soviet Union has posed the objective of a further significant increase in the production of sugar beets. Both the collective and state farms, and the government as a whole have an interest in this.

The sugar beet is a most valuable raw material for the production of sugar. In addition to this, this highly-profitable crop is of great significance for increasing the yield not only of the cultivation of the land, but of livestock farming. The major objection to the further expansion of plantings to this crop has hitherto been the large amount of labor it requires. This is why the proposal, advanced by Comrade N. S. Khrushchev, that the square nest method of cultivating the sugar beet, which makes possible a pronounced reduction in the labor required for its production, is the foundation for the solution of the problem of further expansion of sown acreages, and a significant increase in production of the sugar beet in 1959-1965.

The history of agriculture in the forest-steppe is intimately intertwined with the development of beet planting as a most important factor in increasing its culture and productivity. Plantings of the sugar beet and increases in output have been particularly marked in the Soviet period. Whereas, in 1913, 558,200 hectares were planted to the sugar beet in the Ukraine, by 1940 the figure had reached 820,000 hectares. In 1958, the acreage under sugar beets exceeded 1,300,000 hectares. Simultaneous with the rise in the acreages sown to the sugar beet, there has been an increase in the yield of this crop, which averaged 200 centners over the Ukraine as a whole in recent years, while in 1958 it attained 250 centners per hectare.

The rising concentration of production of sugar beets, constituting an expression of the high level of agricultural specialization, simultaneously creates conditions for increasing the level of specialization of agriculture and for a sharp increase, on the basis thereof, of the output of the livestock industry. With the growth in the production of all types of livestock products in the period from 1959 to 1965, every zone, district, and individual farm will be faced most sharply with the problem of developing the various branches

of livestock raising in such fashion as to make the most rational employment of labor, feed and capital investments. In the past, the increase in production of livestock products occurred, in most collective farms, on the basis of the development of all the branches of livestock farming in each collective farm. This multiple, universal type of development of stock raising in the collective farms was justified during the previous stages of the development of agriculture, and was desirable under conditions of comparatively low yield of livestock products, when efforts were concentrated on involving all collective farms in the production of all types of livestock products. However, due attention was not always given to the existence of favorable natural economic conditions for preferred production of a particular type of livestock product. This led to a rise in cost of production, and a reduction in the social productivity of labor. Therefore, in the present stage of development of agriculture, it is now an economic necessity that production be specialized on the basis of differing emphases in the various farms. This should be done in accordance with the natural and economic features of the particular zones, districts and individual farms. Under the conditions of the forest-steppe, the foundation for the development of agriculture is a rise in the concentration of sugar beet production, which is the factor determining the direction in specialization of livestock raising in this zone in the period from 1959 to 1965.

The forest-steppe is the largest single zone in the Ukraine, embracing about 14 million hectares of arable land, or about 40% of the entire agricultural territory available to the collective farms of the republic. The share of this zone in the production of the marketed products of the collective farms in this republic was 35% for grain, 49% for potatoes, 43% for milk, 44% for meat, 28% for wool, and 37% for eggs in 1957. It is here that the major production of the sugar beet is concentrated. This has an enormous influence upon the level of the economy and the structure of agricultural production. The share of this crop in the economies of the collective farms of the Right Bank and Left Bank Forest-Steppe differs.

In the Left Bank Forest-Steppe, where the available labor force is comparatively less than in the Right Bank, we find about 25% of the total beet production. Its share in the various beet raising oblasts fluctuates between 6% and 7% of the total crop acreage. In the Right Bank Forest-Steppe, and also in the western oblasts, where the labor force is significantly greater, we find about 75% of the sugar beet production, and its share in the total crop acreage varies in a 9% to 12% interval from oblast to oblast. However, in some collective farms, the share of sugar beet plantings is even higher. The level of sugar beet production, and the scale of monetary income from all crops in the collective farms of the sugar beet oblasts in 1957 is characterized by the following data (shown on p. 46):

	Share of sugar beet in sown acreage (%)	Yield, centners per hectare	Beet yield per hectare of total farmland (centners)	Monetary income per hectare of total farmland		
				From all crops (rubles)	Of which from sugar beets	
					Rubles	%
LEFT BANK						
Kharkov oblast	6.5	163	9.3	385	174	45.2
Poltava oblast	6.2	181	10.7	388	214	55.1
Sumy oblast	7.0	226	14.9	602	323	53.6
RIGHT BANK						
Cherkassy oblast	11.0	199	20.3	727	406	55.8
Khmelnitsky oblast	9.3	238	21.5	719	438	60.9
Vinnitsa oblast	11.8	226	25.4	727	504	69.3

As these data show, an increase in the share of sugar beet plantings and of yield per hectare of total cropland from between 9 and 10 to between 20 and 25 centners brings a rise in money income from crop raising to 700 rubles and more per hectare of total cropland, and the monetary income from the sale of sugar beets comprises 50% to 70% of the total monetary income from crops. In the advanced collective farms, where the share of sugar beet plantings is higher (14-18%), and the yield attains 50-60 centners per hectare of total cropland, there is also an increase in the dimensions of the monetary income from crop raising, to

wit, to 1,360-1,725 rubles per hectare of total farmland. The monetary income from sale of sugar beets in these collective farms reaches as high as 60% to 80% of the total monetary income from crop raising.

The sugar beet is not only an important source of monetary income, but what is even more important, is the main source of net profit. This is evident from the following data on income and profitability due to production of this crop in the collective farms of the sugar planting oblasts of the Ukraine in 1957:

Leading collective farms of Vinnitsa oblast	Sugar beet yield per hectare of total cropland, centners	Yield, centners per hectare	Gross income per hectare, rubles	Expenditure per hectare, rubles	Net profit per hectare, rubles	Rate of profit, percent	Net profit from sugar beets per hectare of total cropland, (rubles)
LEFT BANK							
Kharkov oblast	9.3	163	3,057	1,986	1,071	54	61
Poltava oblast	10.7	181	3,637	2,075	1,562	75	92
Sumy oblast	14.9	226	4,911	2,364	2,547	108	155
RIGHT BANK							
Cherkassy oblast	20.3	199	3,993	2,195	1,798	82	183
Khmelnitsky oblast	21.5	238	4,878	2,499	2,379	95	261
Vinnitsa oblast	25.4	226	4,474	2,090	2,384	114	269
LEADING COLLECTIVE FARMS OF VINNITSA OBLAST							
Stalin, Dzhulin Rayon	49.1	326	7,128	2,445	4,683	191	703
Karl Marx, Kryzhopolye Rayon	50.9	352	8,191	2,552	5,639	221	786

Thus, the higher the sugar beet yield per hectare of plowland, and the higher the concentration of the production of this crop, the higher the income and rate of profit therefrom.

The scale of expenditures per hectare of sugar beet fluctuates insignificantly among the collective farms of the various districts. This fluctuation is within the limits of 2,000 to 2,500 rubles, while the income varies with the yield, so that the average net profit per collective farm varies in the range of 1071 to 2547 rubles from oblast to

oblast per hectare of sugar beet plantings. The net profit of the most progressive collective farm exceeds 4 or 5 thousand rubles per hectare. Moreover, as the concentration of sugar beet production rises, there is a regular rise in net profit from the sugar beet per hectare of total plowland, from 61 rubles in the collective farms of Kharkov oblast to 269 rubles in the collective farms of Vinnitsa oblast. In the advanced collective farms, where the share of the land planted to sugar beets represents 14% to 17% and the yield is 50 centners per hectare of total arable land, the

profit from sugar beets per hectare of arable land exceeds 700 rubles.

An increase in the share of sugar beets and in the concentration of production would be a most important factor in increasing the level of income and the progressiveness of farming in the collective farms of the forest-steppe.

Extension of plantings and increase in the production of sugar beets are of high importance not only because this culture is a high producer of income and very profitable when employed for converting to sugar. The sugar beet, it was noted by Comrade N. S. Khrushchev in his speech at the meeting of celebration on the occasion of the award of the Order of Lenin to Stavropol kray, is the only crop which, by value and as a feed, does not yield to corn, and as a matter of fact is even superior thereto. In this connection he emphasized that although the sugar beet cannot substitute for corn, it is not inferior to corn in the number of feed units produced per hectare. This is fully confirmed by data from the beet collective farms of the Ukraine.

The harvest of the sugar beet in 1957 in the collective farms of the Ukraine, over an area of 1,245,000 hectares attained an average of 212 centners per hectare, while the yield of feed considering both the basic product and the side product (beet leaves) as well as the waste of beet sugar

manufacture (pulp) came to 87 centners of feed unit per hectare. This high yield of feed stuffs per hectare has hitherto never been yielded by any crop, particularly when one considers the large acreage involved. There are many collective farms and entire rayons of the Ukraine where the sugar beet crop in 1958 exceeded 300 centners, which comes to 100 centners of feed unit per hectare, when one considers the by-products as well.

Even if the collective farms sell their sugar beet completely for conversion into sugar, this will serve as an important source for obtaining inexpensive succulent feeds in the form of the by-product — the beet leaves, and the wastes of sugar production — pulp. Both in the fresh form and as silage, sugar beet leaves are valuable feed for cattle and other types of livestock. According to the data of I. S. Popov, a single kilogram of beet leaves contains 0.23 feed unit, and the beet leaf yield is 40% to 50% of the weight of sugar beet root. Pulp is also a valuable carbohydrate feed, chiefly for cattle. The yield of fresh pulp is about 70% of the weight of the sugar beet root. The yield of feed substances in the by-products of a single hectare of sugar beets in the collective farms of the beet-raising districts averaged as follows, in centners per hectare, during the three years of 1955-1957:

Oblasts	Average sugar beet crop	Beet leaf yield (40%)		Pulp yield (70%)		Total food value of byproducts (in feed units)
		Natural weight	Feed units	Natural weight	Feed units	
Kharkov	193.4	77.4	17.8	135.4	13.5	31.3
Poltava	198.5	79.4	18.3	138.9	13.9	32.2
Sumy	167.7	67.1	15.4	117.4	11.7	27.1
Cherkassy	203.0	81.2	18.7	142.1	14.2	32.9
Khmelnitsky	208.8	83.5	19.2	146.2	14.6	33.8
Vinnitsa	205.9	82.4	18.9	144.1	14.4	33.3

The table shows the total yield of sugar beet by-product feed substance alone to be more than 30 centners of feed units per hectare, as a three-year average, or in other words, more than actually was obtained during these years on the average per hectare of crops specifically planted for feed purposes (except for corn). Suffice it to say that the yield of food substances per hectare of feed root crops fluctuated, over a three-year average, in the collective farms of these oblasts, within the range of only 16 to 20 centners of feed units, or in other words the yield of feed substances per hectare of sugar beet by-products alone was almost twice as great as the yield of feed substances of root crops specially planted to produce feed. However, in the most advanced collective farms, where the yield of sugar beet was more than 300 centners per hectare, the yield of feed substances in by-product production attained 50 to 60 feed units per hectare.

The significance of by-product sugar beet production as a source of cheap succulent feeds rises with the share of sugar beet plantings and the concentration of production thereof. This is confirmed by the following data (shown on page 48) on the yield of sugar beet by-products in accordance with the concentration of production thereof in collective farms of various oblasts of the Ukraine in 1957.

Thus, as the concentration of sugar beet production increases, the total yield of feed substances resulting from by-products of the raising of this crop in the collective farms of the best districts increases from one and a half

centners of feed units per hectare of total plowland in the Kharkov oblast (where the plantings of sugar beet come to only 6.5% of the total planted acreage) to 4.1 centners of feed units per hectare of plowland in the Vinnitsa oblast (where the share of sugar beet plantings attains 11.8% of the total sown acreage). However, in the most advanced collective farms, where the share of sugar beet plantings exceeds 14-15%, the yield of by-products exceeds 8-9 centners of feed units per hectare of plowland.

If it be considered that the scale of fodder supplies of concentrated, rough, and succulent feeds together was only 5 to 7 centners of feed units per hectare of arable land in the majority of the collective farms of the Ukraine in 1957, it becomes clear that collective farms with a high concentration of sugar beet production obtain as many feed units from the by-products and waste of sugar beet processing alone as do the bulk of the collective farms from all their sources of feed together. Thus, an increase in the share of land planted to sugar beets and in the concentration of its production, along with increase in the production of corn would make possible a substantial expansion and guarantee of adequate feed supply to the collective farms and state farms of the forest-steppe. This is testified to by the following data (shown on page 48) on the provision of pulp to cattle in relationship to the concentration of sugar beet production in collective farms of various oblasts of the Ukraine in 1957.

	Percentage of land planted to sugar beet	Sugar beet yield in centners per hectare of total cropland	By-product yield (in cent- ners per hectare of total cropland)			Total food value of by-products (in centners of feed units)	Feed value of by-products made available to collective farms (in cent- ners of feed units)
			Beet leaves	Pulp			
				Total	Portion thereof going to collective farms		
LEFT BANK							
Kharkov oblast	6.5	9.3	3.7	6.5	3.7	1.5	1.2
Poltava oblast	6.2	10.7	4.3	7.5	4.3	1.7	1.4
Sumy oblast	7.0	14.9	6.0	10.4	6.0	2.4	2.0
RIGHT BANK							
Cherkassy oblast	11.0	20.3	8.1	14.2	8.1	3.3	2.7
Khmelnitsky oblast	9.3	21.5	8.6	15.0	8.6	3.5	2.8
Vinnitsa oblast	11.8	25.4	10.2	17.8	10.2	4.1	3.4
LEADING COLLECTIVE FARMS							
Stalin, Dzhulin Rayon	16.5	49.1	19.6	34.3	19.6	7.9	6.5
Karl Marx, Kryzhopolye Rayon	14.1	50.9	20.4	35.6	20.4	8.2	6.7
Stalin, Volochisskiy Rayon	15.7	58.0	23.2	40.6	23.2	9.4	7.7
Stalin, Kryzhopolye Rayon	18.6	60.2	24.1	42.1	24.1	9.7	8.0

With increase in the concentration of sugar beet production, it is natural that the quantity of pulp available to the collective farms per unit area will rise, and as a result, the pulp provided per cow rises from 33 centners on the average in the collective farms of Kharkov oblast to 117 centners in those of Vinnitsa oblast. However, in the most advanced collective farms, with a high concentration of sugar beet production, the pulp supply attains 150-200 centners per cow. It should be noted that 90 to 100 centners of

succulent feed, including about 40 centners of corn silage and about 50 centners of pulp, are required to feed a single cow (yielding 3,000 kilograms of milk per year). Moreover, calculations have shown the total requirements of succulent feeds per cow with calf to be about 160 centners, of which 90 centners of pulp may successfully be included.

Comparing this need with the data on the average supply of pulp for cattle in the collective farms of the various oblasts, we see that only cows are adequately provided

	Percentage of the acreage planted to sugar beets	Quantity of pulp eased to the collective farms (in centners per hundred hectares of arable)*	Cows per hundred hectares of arable	Pulp per cow centners
Kharkov oblast	6.5	316	9.5	33
Poltava oblast	6.2	352	8.9	40
Sumy oblast	7.0	476	7.9	60
Cherkassy oblast	11.0	713	9.3	77
Khmelnitsky oblast	9.3	765	8.5	90
Vinnitsa oblast	11.8	926	7.9	117
LEADING COLLECTIVE FARMS				
Stalin, Dzhulin Rayon	16.5	1,876	9.8	191
Karl Marx, Kryzhopolye Rayon	14.1	1,808	12.4	146
Stalin, Volochisskiy Rayon	15.7	2,184	10.4	210
Stalin, Kryzhopolye Rayon	18.6	2,248	11.1	202

* The collective farms are issued pulp to the quantity of 40% of the weight of the sugar beets they turn in.

with pulp in the collective farms of the Left Bank Forest-Steppe. On the average, the collective farms of the Right Bank Forest-Steppe are in a position to meet the full needs for pulp not only of cows, but also of calves to a considerable degree. The supply of pulp is highest in the collective farms of Vinnitsa oblast. However, it should be considered in this connection, that this level of pulp supply exists under conditions of what is as yet a low cattle density: 8 to 10 cows per hundred hectares of arable land. As the cattle density, particularly that of cows, increases, the level of supply of pulp to cattle will be inadequate, unless the concentration of sugar beet production is increased. However, in the leading collective farms of the Right Bank, with a higher level of concentration of sugar beet production, the pulp supply even exceeds the need. Consequently, in these collective farms, the density of cows does not correspond to the existing possibilities for utilization of pulp, and may be increased, despite the fact that it is already higher than in other collective farms. On the whole, the required level of density of cow population is here assured by the degree of

concentration of sugar beet production, corresponding to a level of about 50 to 60 centners per hectare of total cropland. The efforts of all the collective farms both of the Right and the Left Bank Forest-Steppe should be directed to the achievement of this level.

A classification of collective farms by percentage of cropland going to sugar beet also shows that as the share of plantings to this culture increases, and as the level of concentration of production rises, the scale of grain production not only does not decline, but also rises. This is the result of the increase in the yield of grain crops due to the general rise in agricultural skill in the collective farms where a higher share of the total crop is devoted to the sugar beet. Moreover, there is an increase in the yield of products resulting from cultivation of the land and of stock raising, and also in the income levels of these collective farms, as is evident from the following data on three beet-raising rayons (Bogodukhov, Volchansk, and Zolochivsk) of Kharkov oblast in 1957:

Collective farms grouped by sugar beet planting as percentage of total sown acreage	Number of collective farms	Sugar beet yield in centners per hectare of arable	Grain production in centners per 100 hectares of arable	Pulp issued to collective farms per cow, centners	Milk yield per cow on prepared fodder, kilograms	Yield of cattle products per 100 hectares of farmland, centners		Monetary income from sugar beets per hectare of total croplands, rubles
						Milk	Beef on the hoof	
Eight and less	28	8.2	764	29	2,207	199	18	159
8.1-12	48	13.6	786	53	2,512	219	20	262
12.1-16	20	18.2	834	70	2,706	243	25	337
On the average	96	13.0	789	49	2,459	217	20	248

Consequently, an increase in the concentration of sugar beet production is a most important factor in raising the culture of farming, in increasing the stability of the feed supply, and in simultaneous increase in the yield of production of agriculture and stock raising per hundred hectares of agricultural land, and in a general increase in the income production of the collective farms. This is why a substantial increase in the share of sugar beet crops, and concentration in the production thereof must be taken as fundamental to the distribution and specialization of the agriculture of the forest-steppe of the Ukraine. Moreover, it should determine the direction of livestock raising in this zone.

The major direction in the development of livestock raising for the market in the forest-steppe should be that of meat and milk production under these conditions. With the increase in production of sugar beet in this zone, particularly favorable conditions are created for the development of this branch of livestock raising, inasmuch as it becomes possible to employ a large quantity of cheap succulent and straw fodders. The higher the percentage of such fodder in the feed, the smaller the amount of feed crops that have to be planted for the production of milk and meat, and consequently, the higher the yield of meat per hundred hectares of plantings of fodder crops. We know, for example, that the practical experience of state and collective farms shows that 30% to 40% more feed, measured in food value, is required on the average per centner of beef than per centner of pork. However, virtually all fodders needed

for the production of pork require special types of plantings, while a considerable portion of the fodder (40% to 45% in feed value) for cattle becomes available in the beet-raising rayons as by-products. As a result, the comparative yield of beef and pork per hundred hectares of fodder crop planting, used to produce these meats in the collective farms of the beet districts of the Ukraine was as follows in 1957, in centners of weight on the hoof:

Oblasts	Meat yield per hundred hectares of fodder crop plantings	
	Beef	Pork
Kharkov	240	141
Poltava	229	102
Sumy	156	113
Cherkassy	226	113
Khmelnitsky	217	177
Vinnitsa	220	166

In the collective farms of the beet-raising oblasts, the scale of meat production from cattle per hundred hectares of fodder plantings is considerably higher than that of pork, despite the fact that the level of consumption of fodder per centner of beef is higher in feed value than that

per centner of pork. From this it is clear that in the future it will be desirable to increase the production of meat in the beet-raising rayons chiefly in the field of beef. This will correspond to the requirements of the populations of the cities and industrial centers of our country. The establishment of new, unified, significantly higher purchase prices for beef will make for successful solution of this problem.

An increase in the production of beef is provided for not only by the expansion and strengthening of the feed supply, but also by an increase in the density of cattle per unit area — and also by setting up a cattle herd structure corresponding most closely to that which favors successful solution of this problem. Calculations show that a general condition for simultaneous rise in meat and beef production in the forest-steppe is an increase in cow density to 20-25 head, accompanied by an increase in the density of cattle to not less than 60-80 head per 100 hectares of arable land, the percentage of cows in the herd being not greater than 30-35%. This will make it possible to sell a substantial portion of the young beeves at 18 to 24 months for meat, and to increase milk production in collective farm districts of this zone to 600-700 centners, and that of beef to 70-90 centners per 100 hectares of farmland. And these, as a matter of fact, are the indices recorded by the most advanced collective farms.

In order to obtain this level of production of milk and beef, calculations show that about 16 tons of succulent fodder is required per cow on the average, or about 350 to 400 tons of succulent fodder per 100 hectares of farmland. This level of production of succulent fodder can be attained in two primary ways: by increasing corn production or by increasing that of the sugar beet.

The share of sugar beet plantings when the square-nest method of cultivation is used can be increased to from 12% to 15% on the Left Bank, and from 15% to 20% of the total sown acreage on the Right Bank. This is attainable within the framework of the existing crop rotations, without changing the allotment of fields thereto. It is necessary only to make some change in structure of the sown acreage at the sequence of crops, providing one and one half to two fields to the sugar beets, which should be planted following plantings that are good predecessors for this crop. Organic and mineral fertilizers should be applied to new sugar beet fields in quantities not less than on areas previously planted to this crop. The expansion of sugar beet plantings should be accompanied also by increase in the level of mechanization of cultivation of this crop so as always to guarantee prompt fulfillment of the complex of agricultural measures required to produce high yields, in the light of the labor force available at each particular farm.

The major direction toward overcoming the as yet comparatively high labor requirement in sugar beet cultivation has been indicated by Comrade N. S. Khrushchev. "In Kursk oblast," he emphasized in his speech at the solemn occasion of the granting of the Order of Lenin to Stavropol kray, "the collective farms, state farms and scientific institutions have for several years been planting beets in the usual fashion, followed by thinning to produce bunches. The result is the production of bunches arranged strictly in squares. Two plants remain in each bunch. The square makes possible mechanization of cultivation, and this cuts labor expenditure in half." This is confirmed by the experience of the beet raising collective farms of the Ukraine as well.

In 1957, the collective farms of the republic used mechanized spacing — bunching — of the regular plantings of sugar beets to obtain square-nest distribution of the plants,

or an area of 234,000 hectares, and in 1958 the progressive square-nest method of cultivation of the sugar beet was applied over a 350,000-hectare area. All this led to an increase in yield and a reduction in outlay of labor. At the Dawn of Communism Collective Farm of Valkov Rayon of Kharkov oblast, the result of the application of this method in 1958 over an area of 400 hectares yielded a sugar beet crop of 300 centners per hectare, and the labor costs per centner of beet produced diminished to 0.2 man-days instead of 0.37 man-days when the usual method of cultivation was employed.

The large-scale introduction of progressive methods of cultivation of the sugar beet, the increase of the level of mechanization and labor productivity on this basis, provide a real foundation for expansion of plantings and a substantial increase in the production of sugar beets. The rise in sugar beet plantings accompanied by a simultaneous increase in yield to not less than 250 centners per hectare will permit a doubling, in the years immediately ahead, of sugar production, and consequently, of the quantity of pulp and beet leaves from this crop. This will result in an expansion of the fodder supplies for livestock raising.

The increase in the sown acreage and in the production of sugar beets will require an increase in the capacities of the existing, and rushed construction of new, sugar refineries. Under conditions of increased concentration of plantings and of sugar beet production, these plants should be so distributed as markedly to reduce the radius of the zones from which they are supplied with raw materials, and consequently the radius across which beet and pulp has to be transported. This is an important step in combating losses thereof.

As the plantings and production of sugar beets increase in the Ukraine, to attain the level of 36 to 40 million tons, the total yield of pulp will be 25 to 30 million tons. This will yield 15 to 16 million tons to the collective farms, or about 100 tons per 100 acres of farmland, in accordance with the conditions of contracting. Moreover, the collective farms will obtain about the same quantity of beet leaves in addition thereto. The pulp and beet leaves will enable them to cover not less than 50% of their total need for succulent fodder, and will result in the production of beef alone in the collective and state farms of the forest-steppe attaining a level of not less than 10 million centners per year, while output of 1957 was less than 3 million centners.

Pulp will and must make possible a substantial increase in the production of beef at feed lots immediately adjacent to sugar refineries, which will retain about 35% to 40% of the total pulp produced, or about 10 to 12 million tons per year. Of this total, not less than 8 million tons would be available for the use of feed lots. The experience of the most progressive feed lots adjacent to sugar refineries shows that the feeding of cattle at lots can be a successful business in districts where pulp constitutes more than 50% of the feed value. Thus, at the Pervukhin feed lot in Kharkov oblast, the following was the consumption per centner of weight gained by cattle in 1957: 40 centners pulp, 1.8 centners feed cake, 1.8 centners coarse fodder, and 1.7 centners concentrates. Pulp constituted about 54% of the feed value, and about 32% of the cost. This is because the cost of the feed unit in pulp is one half to one quarter of that of the other fodders used. The average daily weight gained for the year was 860 grams, and the cost per kilogram of gain came to 7.3 feed units. The cost of the fodder per centner of gain was 278 rubles, and the total cost per centner of gain was 579 rubles. Considering all these factors, it is possible to bring the total level of weight gain on the part of cattle at

feed lots connected with the sugar refineries of the Ukraine to not less than 2 million centners per year in the years immediately ahead. Thus, further expansion of plantings and increase in the concentration of sugar beet production constitute a most important foundation for increase in the production of cheap beef in the beet zone.

Along with the development of meat and dairy farming as the main source of livestock production in the forest-steppe, the raising of pigs will also play a significant role, and it will increase in the time to come. Currently, the share of pork and beef in the total meat production of the collective farms is approximately equal: 45-47% each. However, in the leading beet-growing collective farms, where the general level of meat production has already reached 80 to 100 centners per 100 hectares of farmland, pork growing predominates. This is due to low density of cattle, and also due to the need to rush the increase in meat production chiefly by means of the type of meat farming that yields the fastest results — pig raising.

In the future, when the growth in sugar beet production, and the increase in concentration thereof, will be accompanied by an increase in the density of the head of cattle, the structure of meat production in the forest-steppe will have to be changed in the direction of providing predominance of beef cattle. However, the scale of production of pork in this zone should be determined by the presence of uncommitted resources of concentrated fodders, and also by the possibilities of broad utilization, during the entire period of raising and feeding out of pigs, of skim milk which provides a completely balanced protein diet: about 300 to 400 kilograms of skim milk per head of young pigs being fed out. This will solve the most difficult problem — that of meeting the protein shortage in pig-raising, and will guarantee a sharp rise in the productivity of this branch with a simultaneous reduction in fodder consumption per unit of production.

The leading role of meat and dairy farming in developing the livestock industry in the forest-steppe portion of the beet-planting zone, and the large scale of production in this field will induce the necessity for solution of a number of problems of organization and production.

The development in all collective and state farms of large, specialized meat departments raising beef will require the transportation of a considerable amount of pulp from the sugar refineries, and this would result in substantial losses and additional cost. The most rational method of dealing with losses of pulp food values is that of drying it, and this requires the founding of pulp-dryers at sugar refineries. However, even then, the volume of work in pulp transportation would be very considerable.

In this connection, we believe it desirable and timely to pose the question of organizing, in the vicinity of the sugar refineries, a network of large specialized meat farms to raise and feed young beeves to about the age of one year, plus young stock beyond the number that the farms can handle, and also to feed mature stock ready for slaughter. This would permit, according to calculations, utilization of more than 50% or 60% of all the pulp resulting from sugar beet processing, right on the spot. In this connection, the necessity arises to determine economically-justified forms of business and financial relations between collective farms, as well as with state farms that are suppliers of cattle, as well as with specialized meat-raising enterprises, which may either be government-owned or collective farm-and-cooperative. Relationships of this type should be so developed as to cause collective farms and state farms to be economically interested in the sale of cattle for subsequent raising and feeding.

In examining the question of the organization of special large-scale feedlots in the vicinity of sugar refineries, it has to be borne in mind that the feeding up and particularly, the raising to maturity, of cattle requires a combined diet of pulp and other more nutritious coarse and succulent feeds, which should be produced on the spot. It is therefore necessary that the specialized meat-raising enterprises have their own plans, where the production of the necessary additional fodder can be organized. However, the need for concentrated fodder which will be very large in these enterprises, cannot be completely covered out of their own resources, particularly if one takes into consideration the shortcomings inherent in beet pulp feeding. In this connection, the need arises to organize the production of such combined additives as would, in conjunction with pulp and other feeds, assure complete protein, mineral and vitamin diets to beef cattle. Consequently, the organization of a large network of specialized meat-raising enterprises in the vicinity of sugar refineries, to utilize pulp, should be accompanied by the development of an industry making blended feeds. This would have enormous significance also in increasing the production of beef at specialized meat farms on all collective and state farms in the sugar refinery zone. The development of meat and dairy farming in the beet-raising zone advances to the foreground the objective of increasing not only the milk but the meat yield of cattle in the forest-steppe. This problem can and must be solved primarily by increasing the weight on the hoof and the meat yield of the breeds of cattle native to these areas.

It is chiefly a Simmental type of stock that is raised in the forest-steppe, while it is the Lebedinskiy breed that is raised in the beet districts of Sumy oblast. They are distinguished by high milk production and, at the same time, good beef qualities. In order to increase the meat qualities of the herds even further, it is necessary to test, under the conditions of production, large-scale methods of crossing cows of these breeds with productive bulls of the meat breeds: Shorthorns, Hereford, Aberdeen-Angus, etc. Evidently, it will be desirable in the future, as the density of the cow population increases, to organize work in the market herds in such fashion as to obtain young maintenance calves for reproduction of the herd from the more highly productive cows, bred to bulls of the same breed, while the rest of the cows should be bred to bulls of the meat breeds so that all the offspring of these crossings would be raised for meat only.

Consequently, the foundation of agricultural specialization and the strengthening of the economies of the collective and state farms of the forest-steppe should be extension of the production of sugar beets and more intense concentration thereof, accompanied by a simultaneous increase in corn production, and, on the basis thereof, all-out development of meat and dairy stock farming as the leading branch of the livestock farming in this zone.

This trend in specialization of agriculture, and specifically in livestock raising, should in our opinion, underlie the system of agriculture not only in the forest-steppe, but in many other districts in which conditions are similar. Of course, there should be some changes determined by the specific nature of the given district. This will make possible not only a sharp rise of sugar production in the country during the current seven-year plan, but a significant reinforcement of the feed base for livestock raising, and the achievement of a significant rise in production, per head of population and per unit of arable land, of many important types of agricultural products, accompanied by a reduction in their cost.

G. V. Kozlov:

The Structure of a Course in Political Economy

Our country has entered a new historical period in its development — the period of all-out upbuilding of communism. At the present stage, the acquisition of Marxist-Leninist theory, and primarily of economic theory, by the broad masses, takes on special significance. This has to be aided by the development of fully-valid texts, designed for various groups of students of the economic theory of Marxism-Leninism. The contest now being held for a popular textbook of political economy should play an important role in this.

The publication not of one, but of a number of textbooks in political economy has long since become a pressing necessity. We need a popular text, that would set forth in brief and accessible form, the foundations of the Marxist-Leninist economic theory, and which would be designed for the use by an extensive group of persons active in the Party and the Soviets. One is needed for those making their first study of political economy and discussion groups, another for the secondary specialized schools, another for colleges of economics and departments of economics, etc. In view of the great expansion of correspondence schools in our country, a special text has to be prepared for correspondence students.

Sometimes the opinion is advanced that a textbook in political economy should consist only of general formulas and definitions. This opinion is profoundly erroneous. However, it would be wrong to believe that a textbook of political economy should set forth questions of current politics and should reflect the "heat of the day." No science stands still. Sciences are always in development. This is fully applicable to political economy, which reflects the economic processes occurring in society. The 21st Congress of the CPSU has posed before the science of economics the objective of creative generalization and theoretical solution of the new problems advanced by life. Certain propositions of political economy may lose their validity, others will be refined, and still others will make their appearance for the first time. This applies primarily to the section "The Socialist Method of Production." Capitalism has been existing for some centuries as a social and economic system, and adequate material has accumulated during this period for scientific analysis of capitalist relationships of production. However, as far as the socialist system of production is concerned, it took root in the Soviet Union only a little more than 20 years ago. Much that is new in theory and practice of the upbuilding of socialism is being contributed at the present time by the lands of people's democracy. This cannot but have an effect in further enriching the Marxist-Leninist theory of the socialist method of production. However, political economy should not set forth the economic politics of any particular state. It studies the relationships of production, and, on this basis, it discovers and formulates the economic laws of the development of various methods of production.

During the years of Soviet power, the structure and

content of the course in political economy, and the forms in which it is studied have undergone very significant changes.

During the first period subsequent to the October Revolution the textbooks written by A. Bogdanov, A Short Course in Economic Science, and A Primary Course in Political Economy, and Questions and Answers, and also the book written by him jointly with I. Stepanov, A Course in Political Economy (in two volumes), achieved wide circulation. Despite the fact that Bogdanov did not discuss a number of important problems of Marxist political economy, and that certain questions were set forth incorrectly in these books, generally speaking, they played a positive role, as they assisted in the dissemination of the economic ideas of Marxism in our country. The Bogdanov textbook of greatest significance was A Short Course of Economic Science. V. I. Lenin, in a review of this text published in the magazine Mir Bozhiy in April, 1898, gave it a positive evaluation. The first edition of A Short Course of Economic Science appeared in 1897, and by 1924 had gone through 15 editions.

In the author's view, this textbook was designed for the middle category of students. His more popular text was A Primary Course in Political Economy, and Questions and Answers. The first volume of A. Bogdanov's major, two-volume textbook, A Course in Political Economy, appeared in 1910. The authors were not successful in publishing the second volume of their work before the revolution, and it appeared in four sections in the years 1919-1926.

Along with the Bogdanov textbooks, a significant role, particularly during the first years after the revolution, was played by Karl Kautsky's The Economic Teachings of Karl Marx, written in 1886. As we know, Kautsky did a positive job of spreading the ideas of Marxism in his day. Many revolutionaries first became acquainted with Marxism through the works of Kautsky. Lenin wrote the following of works of his: "We know, from many of Kautsky's works, that he was able to be a Marxist historian, and that these of his works remain a permanent achievement of the proletariat, despite his later renegacy." (1)

After the end of the Civil War, and the transition to peaceful economic upbuilding, an intensive process of training of Communist Party, trade union, and economic personnel began in the Soviet land. The Communist Party was faced with the practical problem — that of equipping a very numerous personnel with knowledge in the field of Marxist theory. Toward this end, an extensive network of Communist universities, of government-and-Party schools (both those in which students were in attendance and correspondence types, with day and evening sessions), circles and courses were established. The Workers' Faculties were established, and the number of higher and secondary special schools increased. All this demanded the publication of a number of textbooks in political economy. In the thirties, and the beginning of the forties, textbooks and teaching aids for courses in political economy were issued for various levels and types of education institutions. Among them, note should be taken of F. Mikhalevskiy's A Beginner's Course in Political Economy, L. Segal's A Brief Course in Political Economy (For Marxist-Leninist Self-Education Circles), I. Dashkovskiy's A Condensed Course in Political Economy, L. Lyubimov's A Course in

Political Economy, V. Motylev's A Short Course in Political Economy, I. Lapidus and K. Ostrovityanov's Political Economy in Relation to the Theory of the Soviet Economy, L. Leontyev's A First Course in Political Economy, I. Markhlevskiy's What is Political Economy and What Does It Teach?, Yu. Borkhaardt's The Fundamental Concepts of Political Economy In Accordance With the Teachings of Karl Marx, etc.

At the same time, a number of books were issued in which the ideas set forth in Karl Marx's Capital were presented and commented upon; A Popularization of Karl Marx's "A Critique of Political Economy" by Yu. Borkhaardt, Commentaries on the Three Volumes of Karl Marx's Capital by D. Rozenberg, etc.

In the thirties, the political economy curricula included only problems pertinent to the capitalist system, and lacked themes on pre-capitalist formations, and on the socialist method of production. However, life demanded ever more insistently a study of theoretical problems of the socialist economy. In answer to this demand, pressing theoretical problems of the socialist economy began to be illuminated in teaching and in the textbooks on political economy. In the textbooks on political economy, during examination of various categories of the capitalist economy (for example, value, rent, etc.), comparisons were made with the Soviet economy, the question as to whether these categories existed in our economy was examined, and the nature of these categories was studied. In addition, an independent course, first called "Economic Policy," and then "The Theory of the Soviet Economy," began to come into being. In the course on "Economic Policy," major attention was given to a study of the bases and methods of socialist construction in our country. In this connection, the problem was posed of enabling the students not only to master empirical material of current policy, but to be in a position theoretically to analyze the processes occurring in the Soviet economy.

The course in economic policy began gradually to be converted into a course in the theory of the Soviet economy, and in a number of colleges, the departments of economic policy were transformed into departments of the theory of the Soviet economy. The Soviet economists increasingly recognized the need for a more profound theoretical study of the Soviet economy. However, no unified and integral course in political economy, in the broad meaning of the term, was developed during the pre-war years. Only in 1942, did the colleges begin to teach a course including thematic material of pre-capitalist forms, and on the socialist form of production. The former textbooks became outdated, as they had no section devoted to the socialist method of production. An acute need for the publication of a political economy textbook arose.

As we know, a text of this kind was published in 1954. It was prepared by a collective of Soviet economists. In 1955, a second edition of the textbook of political economy was issued, in which the experiences in teaching with this new textbook, and the numerous observations and suggestions put forth at meetings of political economy faculties, at conferences of economists, etc., were taken into due consideration. Subsequent events, primarily decisions of the 20th Congress of the CPSU, which advanced a number of new theoretical problems and posed the problem of completely overcoming the consequences of the personality cult, in addition to the successful and consistent development of the lands of the socialist camp, and the processes of deepening of the general crisis of capitalism, demanded that the textbook of political economy be reworked. The third edition appeared in October, 1958.

The new edition of the textbook differs substantially both in structure and in the content of the various chapters, from the two preceding editions. In our opinion, a number of the changes introduced into the structure of the textbook improved it substantially. Thus, the authors proceeded correctly in setting up a special chapter titled, "The Object of Study of Political Economy," which familiarizes persons studying political economy with a number of categories that they will study during the entire course. Also positive is the fact that in a textbook designed for the mass reader, the pre-capitalist methods of production are discussed not in three chapters but in one. In the third edition of the textbook, the three stages in the development of capitalism in industry are examined after the subject "Capital and Surplus Value." This assists the individual studying political economy to obtain a better understanding of the development of industrial capitalism and to grasp the limits of capitalist utilization of machinery. Also correct is the fact that the examination of national income does not precede the theme on the reproduction of social capital, but is included in the chapter "Reproduction of Social Capital and National Income." This corresponds to V. I. Lenin's instructions to the effect that the "question of the 'national income' and the 'national consumption' is absolutely insoluble when posed in isolation and can only give rise to scholastic debates, definitions and classifications, but that complete solution is possible when the process of production of social capital as a whole is analyzed." (2)

A number of important changes have been made in the section "The Socialist Method of Production." These changes include the fact that the upbuilding of socialism in the lands of people's democracy is illuminated not in special chapters at the end of the course, as was the case in the second printing, but in the section "The Transition Period from Capitalism to Socialism." In place of the chapter, "The Triumph of Socialism in the USSR," a chapter is provided in the third edition called "The Creation of the Socialist System of Economy," while the final chapter, "Economic Collaboration Among the Countries in the Socialist Camp" is replaced by a chapter titled "The World Socialist Economic System."

It would, however, be wrong to contend that the structure of the third edition of the Course in Political Economy is perfect and needs no further improvement. There can be no doubt that practice itself will dictate the need for introducing a given level of the structure of the textbook. However, in introducing changes, it is necessary to avoid the extremes: first, political economy must not be converted into a study of the market, or into a course in current economic politics, and, in the second place, it must not be converted into a collection of skillful and general formulas, which are merely declarative, and are not derived from analysis of the real process of development of the socialist method of production. The presence of general formulas in the textbook leads to a sketchy memorizing of definitions instead of a profound study of the multi-faceted economic phenomena in their development, and the application of the knowledge thus arrived at, in practice.

Competition among Soviet economists in the writing of a number of texts in political economy should play a positive role in improving the structure and content of the course. It cannot be deemed normal that there is at present only a single textbook for the many forms and different levels of educational institutions.

At present, the greatest need is for a political economy textbook for the economics colleges and the economics departments of universities, and also for a popular mass textbook. In the present article, we should like to advance

some thoughts on the structure of a popular mass textbook in political economy.

In such a textbook, the pre-capitalist forms of society should be discussed in a single chapter. The three stages of development of capitalism in industry, to the degree that they represent stages in the struggle of the bourgeoisie for acquisition of greater surplus value, should not be treated in a separate chapter, but should be set forth in the chapter on "Capital and Surplus Value." Further, we deem it desirable to combine the material on commercial and loan capital into a single chapter titled "Commerce, Credit and Monetary Circulation Under Capitalism."

In the section on "Monopoly Capitalism," the present chapters "The Colonial System of Imperialism" and "The Deepening of the General Crisis of Capitalism after the Second World War" should no longer be independent chapters. In our opinion, the reason for this change is the following. In setting forth the fifth economic characteristic of imperialism — "completion of territorial division of the world among the great powers, and the struggle for its re-division," one cannot help but provide a description of the colonial system of imperialism. For all practical purposes, this is the way that things are going in the teaching of political economy. The singling out of a separate theme, "The Colonial System of Imperialism" leads to unnecessary repetition. The description of the colonial system of imperialism should, in our opinion, be provided in organic connection with the fifth characteristic of imperialism, and its breakup should be examined under the theme "The General Crisis of Capitalism." This same theme should deal not only with the essence and basic characteristics of the general crisis of capitalism, but with the problem of its development and exacerbation. In this connection, one may refrain from providing a separate chapter on the deepening of the general crisis of capitalism after the Second World War.

In the section "The Transition Period from Capitalism to Socialism," it is, in our opinion, undesirable to single out the following as independent themes: "Socialist Industrialization," "Socialist Transformation of Agriculture," "The Creation of the Socialist Economic System." The textbook on political economy should contain a single theme "The Transition Period from Capitalism to Socialism." This theme should set forth the Marxist-Leninist teachings on the transition period, on the basis of generalization of the rich material in the construction of socialism in the USSR and the lands of people's democracy, including data on socialist industrialization and transformation of agriculture. Retention of special themes on the industrialization and transformation of agriculture is a carryover from the past. This was justified when the Marxist-Leninist teachings on the transition period were set forth without direct connection with the theory and practice of socialist industrialization and the socialist transformation of agriculture. Nor should special chapters be provided for the economies of the lands of people's democracy. If the presence of such chapters was justified to some degree during the period of establishment of the socialist method of production in the lands of people's democracy, under today's conditions, when many of them are completing the upbuilding of socialism, and when a socialist world economic system has been established, there is no such necessity.

The political economy of socialism studies not the economies of the individual countries, but economic laws and categories characteristic of all socialist countries. The method of presentation should be based on illumination of the most typical laws and features, that is, it is necessary to examine economic laws and their interrelations, in

generalized form. From this it follows that the corresponding problems of the socialist method of production should be illuminated simultaneously in the experience of all the socialist countries. Moreover, this methodological approach does not exclude, but on the contrary assumes the presentation of concrete historical data, including the experience of the USSR in building socialism, as being the richest, and at the same time, typical of other socialist countries, and should therefore be the basis for examination of the corresponding questions. This type of construction of the section, "The Socialist Method of Production," would, in our opinion, correspond to the teachings of V. I. Lenin to the effect that the basic characteristics and laws of socialist construction in the USSR are not of local, not of national, but of international significance.

In the third edition of the textbook on political economy, the section "Socialist System of Economy," opens with the theme "Public Property in the Means of Production. The Nature of Socialist Production Relations." We believe it desirable that this section beginning with the theme "The Fundamentals of the Socialist Method of Production," should present a fundamental description of the productive forces and production relationships of socialist society.

One wonders at the necessity of themes such as "The Fundamental Economic Law of Socialism" and "The Law of Planned, Proportional Development of the National Economy." Economic laws, their nature and action should be examined in direct relationship with analysis of specific economic phenomena and production relations, as otherwise they become bare definitions not explaining the processes of economic life actually in progress.

The method of investigating economic laws employed in *Capital* is instructive for us. Marx did not attempt to provide formulas and definitions of economic laws. But everyone who carefully studies this labor of genius, will be profoundly aware of the production relations of economic laws of capitalist society. We, however, tend to strive to characterize and formulate economic laws in isolation, to a substantial degree, on examination of the economic processes occurring in socialist society. To some degree, this is what happens in the illumination of the basic economic law of capitalism in the third edition of the textbook on political economy. The authors of the textbook removed from this theme materials on the public socialist property, on socialist relationships of production, on the nature of economic laws under capitalism and the economic role of the socialist state, with the result that the theoretical level of this theme was lowered to a substantial degree. We hold that it is undesirable to examine the basic economic law of capitalism in a separate and independent theme, but that it should be elucidated in a theme in which the nature of socialist property and socialist production relations is clarified. The socialist ownership of the means of production defines the nature of socialist production, its purpose, and consequently the basic economic law should be examined only in intimate connection with socialist property, and not in an independent theme. As far as the law of planned, proportional development of the national economy is concerned, it should be discussed in conjunction with an analysis of the planned system of the socialist national economy, and it is necessary that this law not merely be enunciated, but that it be demonstrated that its existence and action are conditioned by the objective necessity of planned conduct of the economy.

The above pertains also to the law of continuous increase in the productivity of labor, and to the economic law of distribution in accordance with labor. These laws have to be revealed on the basis of a study of the nature of social

labor under socialism, which differs fundamentally from the nature of labor in all preceding social orders, and which calls to light the economic law of the continuous growth of labor productivity, and the law of distribution in accordance with labor. The behavior of the law of value under socialism and the categories connected therewith (price, money, etc.) should be examined on the basis of an analysis of the nature of commodity production under socialism.

We should like to offer some thoughts on the theme "Cost Accounting and Profitability. Cost and Price." Our personnel study political economy primarily so that it may aid them in their practical work. In this connection, the recognition, by persons studying political economy, of the Marxist-Leninist principles of organization of the administration of socialist production and socialist management, is called upon to play a major role. At first glance it may appear that this theme does not relate to political economy. In reality this is not the case. Socialist relationships of production give rise to specific principles of management of production and socialist administration, appropriate to socialist production. Moreover, production relations under socialism cannot be recognized in all their aspects without an elucidation of the socialist principles of management. Of course, certain aspects of socialist management are set forth in the theme "Cost Accounting." However, that is not quite adequate. In preserving the basic content of the given theme, it is necessary to orient both the instructor and the student of political economy by means of a clarification of the major principles of socialist business management. Therefore, we would suggest that the theme "Cost Accounting and Profitability. Cost and Price," be replaced by the theme "Fundamental Principles of Organization of the Management of Socialist Production and Socialist Business Administration," covering the following questions therein: democratic centralism in the administration of socialist production, one-man management and the role of the trade unions, being economical, cost accounting, profitability, the value and cost of production, and the utilization thereof by socialist society.

In discussing the second edition of the textbook of political economy, certain comrades stated that it is undesirable to deal with socialist agriculture as an independent theme. The specific nature of the behavior of economic laws in agriculture, in the belief of these comrades, is to be examined in themes devoted to the appropriate economic laws. In our opinion, the authors of the textbook proceeded properly in retaining the theme on socialist agriculture, but unfortunately, they narrowed it by giving it the title "The Economic Foundations of the Collective Farm System." This theme should not limit itself to examination of the economies of the collective farms alone. Government-owned enterprises exist in the agriculture of all the socialist countries. It is necessary to study how the general laws manifest themselves in the cooperative and in the government form of agriculture. Moreover, the designation of the theme "Economic Foundations of the Collective Farm System" cannot be deemed a happy one, as in the lands of people's democracy, cooperative agricultural enterprises are not called collective farms. Preceding from the foregoing, it would appear desirable that problems of agriculture be set forth in a theme titled "The Socialist System of Agriculture."

The course in political economy should be supplemented by a theme on competition of the two opposing world systems — the socialist and the capitalist. This theme acquires particular significance in the light of the decisions of the 21st Congress of the Communist Party of the Soviet

Union. We know that the transition from capitalism to socialism is of major significance in the present epoch. This world-historical process is today proceeding under conditions in which socialism has entered the decisive stage of the economic competition with capitalism. As is noted in the report of Comrade N. S. Khrushchev at the 21st Congress of the Communist Party of the Soviet Union: "Today the problem consists of achieving superiority in world production for the socialist system over the capitalist system, of surpassing the most developed capitalist countries in the productivity of social labor, in the output of products per head of population, and in assuring the world's highest living standard." The study of the relationship between the forces of the two world systems, and the trends and tendencies in their development, is of enormous significance. This theme should formulate a generalized conclusion on the inevitability of the triumph of socialism on the world scale, on the basis of a prior study of the laws of the capitalist and socialist systems of economy.

Proceeding from the foregoing, the following tentative outline of a popular textbook of political economy might be suggested:

Chapter One. Introduction (The Object of Political Economy).

Chapter Two. Pre-Capitalist Methods of Production.

The Capitalist Method of Production

A. Pre-Monopoly Capitalism

Chapter Three. Commodity Production. Commodities and Money. (3)

Chapter Four. Capital and Surplus Value. Three Stages in the Development of Capitalist Industry.

Chapter Five. Wages.

Chapter Six. Accumulation of Capital and the Improvement of the Proletariat. (4)

Chapter Seven. Capital Turnover and Circulation.

Chapter Eight. Profit and Price of Production.

Chapter Nine. Trade, Credit and the Circulation of Money Under Capitalism.

Chapter Ten. Land Rent. The Development of Capitalism in Agriculture.

Chapter Eleven. Reproduction of Social Capital, and the National Income.

Chapter Twelve. Economic Crises.

B. Monopoly Capitalism

Chapter Thirteen. The Economic Characteristics of Imperialism. (5)

Chapter Fourteen. The Historical Role of Imperialism.

Chapter Fifteen. The General Crisis of Capitalism.

The Socialist Method of Production

A. The Founding of the Socialist System of Production

Chapter Sixteen. The Transition Period from Capitalism to Socialism.

Chapter Seventeen. The Socialist System of World Economy.

B. The Socialist System of Economics

Chapter Eighteen. The Fundamentals of the Socialist System of Production (Productive Forces and Productive Relationships).

Chapter Nineteen. The Planning System of the Socialist

Economy.

Chapter Twenty. Social Labor Under Socialism.

Chapter Twenty-one. Commodity Production and Money Under Socialism.

Chapter Twenty-two. Basic Principles of the Organization of the Administration of Production and Socialist Management.

Chapter Twenty-three. Socialist System of Agriculture.

Chapter Twenty-four. Trade Under Socialism.

Chapter Twenty-five. The Financial and Credit System of Socialism.

Chapter Twenty-six. Socialist Reproduction and the National Income.

Chapter Twenty-seven. The Gradual Transition from Socialism to Communism.

C. The Competition of the Two World Systems

Chapter Twenty eight. The Coexistence of the Two World Systems. The Historical Inevitability of the Triumph of Socialism Throughout the World.

As is evident from the foregoing outline of a textbook for political economy, the section on "The Socialist Method of Production" must be developed on the basis of the following. First, the planned process of founding of the socialist method of production is revealed to the student. Two chapters are devoted to this. In the first chapter, "The Transition Period from Capitalism to Socialism," examination is made of the general laws of proletarian revolution and the up-building of socialism, and the specific forms of manifestation thereof on the basis of generalization of the experience of the building of socialism in the USSR and the lands of people's democracy. Questions as to socialist industrialization and the socialist transformation of agriculture, as well as the question of the creation of the socialist economic system in the USSR and the lands of people's democracy should be set forth in organic relationship with the problems of the transition period.

Inasmuch as the socialist system of economics has now emerged from the bounds of a single country, it would be desirable, in this section, to provide a chapter on the socialist system of world economy. In this chapter it is necessary to demonstrate the historic role of the USSR, the land where socialism first triumphed, in the constant motion of the world socialist system, the new type of international relationships existing among the lands in the socialist camp, and the growth of economic power of the socialist system of world economy. The inclusion of such a chapter would serve as the foundation for the following themes to be set forth primarily from the standpoint of the general laws of the socialist method of production, from the standpoint of the theoretical generalization of experience in expanded reproduction in the lands of the socialist camp.

In the next six chapters, socialist relationships of production, the essence of the economic laws of socialism, and the nature of their action should be examined. Central among these is the chapter "Foundations of the Socialist Method of Production" in which, on the basis of an analysis of the foundation for socialism and for socialist ownership of the means of production in material production, it is necessary to reveal the nature of socialist production relationships, the economic role of the socialist state, the nature of the economic laws of socialism, the essence and role of the primary economic law of socialism. In the following chapter, "The Planned System of Socialist Economy," it is desirable to provide a profound description of the socialist method of production, and to show that a planned

economic system is inherent objectively in socialism, and that the economic law of planned, proportional development is effected in this way. The 20th chapter should examine the nature of social labor under socialism, and the new relationship of man to labor, should show the essence and behavior of the law of continuous growth of labor productivity and the law of distribution in accordance with labor, and should examine forms of payment to labor.

In the chapter, "The Basic Principles of Management of Production and Socialist Business Administration," it is necessary to provide additional data on the nature of socialist production. It should clarify the essence and the role of democratic centralism in the guidance of the socialist economy. The same chapter should examine the problem of cost accounting, and the categories related thereto. Two chapters should be devoted to examination of the sphere of circulation.

In the chapter, "Socialist Reproduction," the process of reproduction is illuminated in the unity of its factors — production, distribution, and circulation.

The 27th chapter should describe the two phases of communism, and the roads to be followed in the gradual transition from socialism to communism. The final chapter, as already noted, should be one devoted to competition of the two systems. This chapter should reveal the Leninist principle of peaceful coexistence of the two systems, should analyze the relationship of forces, and the perspectives for the development of the two world systems, and should demonstrate the historical inevitability of the triumph of socialism in the entire world.

Literature Cited

- (1) V. I. Lenin, Collected Works, Volume 28, p. 246 (Russian Edition).
- (2) V. I. Lenin, Collected Works, Volume 3, p. 41 (Russian Edition).
- (3) The primitive accumulation of capital is discussed at the end of this chapter.
- (4) The question of the historical tendency of accumulation of capital is discussed at the end of the chapter.
- (5) The question of the fundamental law of capitalism is discussed under the theme "Capital and Surplus Value," and the action of that law under the conditions of imperialism is discussed after the examination of the characteristics of imperialism. The colonial system of imperialism should be examined in connection with the territorial division of the world.

P. Zaoztrovtssev:*

Socialist Property and Commodity Production Under Socialism

In the course of the discussion of questions on commodity production and the behavior of the law of value under socialism, many economists have concentrated their attention on the peculiarities of socialist commodity production, and on its significant differences from commodity production in pre-socialist social structures. The investigation of the specific characteristics of commodity production under socialism is of very great importance. However, the thing that should be explained in the first place is the common foundations of all commodity production,

* Leningrad.

and this permits a deeper and more correct discovery of the specific peculiarities thereof, in each social and economic foundation.

The general condition for commodity production at all stages in its development is the presence of different owners or proprietors of the means of production and of the products entering into exchange on the basis of the social division of labor. It is precisely this condition that determines the need for commodity production in any social-and-economic structure.

Some economists hold that Marx deemed the presence of private owners of the means of production and other products of labor to be an obligatory condition for the existence of commodity production. It is impossible to agree with this view.

Marx did not limit the conditions giving rise to commodity production to the presence of private ownership. He noted communal ownership (when various communes appeared in the capacity of independent owners) as a basis for commodity relationships. "The exchange of commodities," Marx wrote, "begins where the commune ends, at the point of its contact with other communes, or the members of other communes." (1)

According to Marx, commodity relationships are relationships of alienation of use value accompanied by preservation of the value of the commodity in the hands of the commodity-owner. No alienation is conceivable without relationships of acquisition, without relationship of property and ownership. Consequently, where there are no relationships between different owners or different possessors, one cannot speak of commodity production. Marx always emphasized the general conditions for the appearance and development of commodity production, the conditions for conversion of a product into a commodity. In assuming that commodity relationships would not exist under socialism, Marx and Engels went on the basis that only a single owner and possessor of the means of production would exist under these conditions.

However, experience has shown that socialist society develops on the basis of two forms of social property. With the founding of socialist property, the fractionization and disunity of the commodity producers, antagonistic relationships among them, the anarchy of production, which are characteristic of private property, owner commodity production, are eliminated. The production relationships among people undergo a fundamental change, on the basis of social property. However, under conditions of unity of the socialist economy, the socialist state, collective farms and industrial cooperatives constitute different owners of the means of production and of their produce, and enter into relations with each other on the basis of a social division of labor. This serves today as the major cause for the existence of commodity production under socialism.

Moreover, in the socialist stage of the development of society, there exists, within the framework of the general public form of property, relationships between the individual enterprises, that are not the owners, but are to a considerable degree the possessors of (limited) means of production and their products. These relationships among government enterprises also require a commodity form of production, and relationships of a commodity and money nature, as will be demonstrated below.

Finally, there exists under socialism the personal property of the members of the agricultural cooperatives in the products obtained for their work in the collective farm, and in their private plots. This relates to the nature of collective farm property. Under conditions of division of labor, this form of property also demands commodity and

money relationships.

Thus, the presence of two forms of socialist property (which means that there are different owners and possessors of the means of production and of their products) when accompanied by a social division of labor, embraces the general condition for the preservation of commodity production under socialism.

We believe that the efforts of certain economists to explain the causes for the existence of commodity production under socialism on the basis not of the form of property and the division of labor, but on the basis of some possible other factors, to be unfounded. It is completely incomprehensible, for example, how the so-called social inhomogeneity of labor can be deemed to be a cause for the existence of commodity production under socialism. (2)

The differences and even the contradiction between mental and physical labor, the differences between skilled and unskilled, between heavy and easy work have never given rise to commodity production. These differences existed, for example, within the framework of the landlord economy under feudalism, and within the framework of slavery society, but they did not do away with the fact that these were natural economies. They exist within any large modern industrial enterprise both under capitalism and under socialism, but do not cause commodity relationships within these enterprises between the departments or among the workers of these enterprises. It is therefore the less comprehensible why socialist divisions in labor induce the need for commodity and money relationships among government, socialist enterprises, when these enterprises themselves are "socially homogeneous."

At the same time, historic facts bear witness to the fact that the presence of different owners and possessors, even when labor is "socially homogeneous," as is the case with small peasants and artisans, give rise to commodity production and commodity exchange. Primitive communes exchange the products of even more "socially homogeneous" labor than is the case in simple commodity production, and this exchange bore the nature of commodity exchange. Thus, the "social inhomogeneity" of labor cannot be the reason for commodity production and commodity exchange.

Nor can the reason for commodity production be the "inequality in social value of labor," or the inequality of "the position of the working people in the social process of production," as Comrade Kronrod makes out to be the case. If one accepts this position, one may arrive at the conclusion that it is necessary to maintain commodity production under complete communism, because, even then, "the unequal value of social labor" will exist, as will differences in the participation of certain people in the process of production in accordance with the differences in given capacities.

To reduce differentiated, complex labor to simple labor is possible, in principle, without commodity relationships. It occurs today, every day, at any industrial plant, with the aid of wage scales, skill questionnaires, and, in the collective farms, by means of crediting with work-day units, etc. However, as we know, this type of reduction of complex labor to simple labor does not lead to money-and-commodity relationships within the government enterprises and the collective farms.

Today, it is impossible to reduce expenditures of various types of labor to an average, socially necessary labor throughout the socialist economy, directly in working hours, not because of the "social inhomogeneity" of labor, but because of the fact that there are different owners and possessors of the means of production. To explain the

need for commodity production under socialism by the inhomogeneity of labor would mean once again, but merely in a concealed form, to transfer the problem into the field of accounting and comparison of labor. However, as has been made clear in our literature, the need for accounting and comparison of labor expenditures cannot in themselves be the cause for real commodity-and-money relationships. At the present level of computer technology, inhomogeneous forms of labor under socialism, if it were merely their inhomogeneity that were the obstacle to the realization of direct accounting of social labor, could be reduced to average socially-necessary labor by the technical means available.

In explaining the need for commodity production under the conditions of socialism, Comrade Kronrod ascribes great importance to the contradiction between joint social labor and individual and collective labor expended upon the production of products in a given enterprise. (3) However, such a contradiction, as well as the problem of comparing the individual outlays of labor at individual enterprises to the socially necessary outlays, will apparently remain under communism, too. If the non-antagonistic contradiction between labor at the individual enterprise, and the joint labor of society as a whole be made the reason for commodity production, then commodity production will have to be "eternalized."

The efforts to explain the need for commodity production by the law of distribution in accordance with labor, by the principle of material incentive to working people in the results of production, and the need for equivalent compensation by society for their outlay of labor are also insubstantial. Even Marx and Engels have noted the possibility of distribution in accordance with labor without money-and-commodity relationships. Under the conditions of socialism, commodity exchange is one of the forms of realizing the principle of distribution in accordance with labor, but it is not determined by the latter.

Some economists explain the commodity nature of the means of production by the unity of socialist reproduction. To the degree, they declare, that commodity-and-money relationships are inevitable in one portion of the national economy — at the point of contact of the two forms of socialist property — they have to be used within the government-owned sector, through the medium of wages. This point of view is wrong, as, under socialism, labor power is not a commodity, and therefore cannot be the bearer of commodity-and-money relationships in the government sector. Moreover, the extension of commodity-and-money forms to the relation between enterprises within the government sector would, in that case, be purely a formality. The unity of socialist reproduction can explain only the need for monetary accounting of concrete and abstract labor for purposes of calculation. However, in order to explain the commodity nature of the means of production within the general-public form of property, it is necessary to discover, within the government sector itself, the internal causes giving rise to the need for commodity-and-money relationships.

Nor is it possible to explain the need for commodity production under socialism by the relative isolation of government-owned enterprises. The isolation of an enterprise by itself, regardless of property relationships, does not give rise to the need for commodity relationships. Within each modern large-scale enterprise, there is a substantial degree of independence on the part of the various departments, but this does not lead to commodity relationships between them. Nor will there be commodity production under full communism, although then, too, a certain degree

of isolation of enterprises, based on the social division of labor, will also exist. The isolation of producers gives rise to the need for commodity production only when it is related to the existence of different owners and possessors of the means of production. Therefore, if government enterprises under socialism appear as "individualized producers," and this necessitates commodity relationships, this specific individualization must be related to a specific form of property.

It is obvious that "individualization" of our government-owned enterprises does not embrace relationships among them comparable to those between different owners. All the enterprises in the government sector belong to a single owner — the people, in the person of its government. Nevertheless, practice testifies to the fact that monetary and commodity relationships exist even here, that is among enterprises belonging to a single property owner.

Some economists attempt to derive the existence of commodity relationships under socialism directly from social property, without considering the general conditions for the existence of commodity production. It appears to us that, to explain the reasons for commodity production under socialism by direct derivation from the nature of social ownership is methodologically incorrect. In order to reveal the causes giving rise to commodity relationships in socialist society, it is necessary to subject the specific nature of social ownership during the first phases of communism to analysis, and also to examine such economic categories as ownership, disposition, and utilization.

Marx and Lenin, analyzing the relationships of production of pre-socialist societies, showed how, under given circumstances, property relationships are complicated by the relationships of ownership, and lead to various unique forms having independent economic significance. Possession is a category derivative from property, which is an inseparable element therein. As a rule, possession and property coincide. However, under given historical conditions, ownership is separated from property, and plays a relatively independent role. Thus, during the period of breakup of primitive communal society, and under feudalism, possession of the land was separated from ownership thereof. "There," wrote Marx, "where property exists only as the property of the commune, the individual member as such is only the possessor, hereditary or not, of a particular portion..., there is also collective property, accompanied by merely private possession." (4) V. I. Lenin wrote that "possession is not yet ownership." (5)

We know that the feudal lord was the owner of the land, and the peasant only its possessor. Under the feudal system, the landlord was the owner of all the means of production, and was in a position to sell and buy the peasant along with all his property, or to make of him a household servant and to take his means of production away.

The separation of possession from property had a progressive significance for growth of the productive forces during certain periods in the development of society. It increased the material incentive of the direct producer in the results of production. At the same time, the separation of the possessors from the owners results, under specific historical conditions, in commodity relationships not only among owners but among possessors, on the basis of the property of one and the same owner. The possessors of the means of production, without being owners, enter commodity and monetary relationships with each other on the basis of production of goods founded on the utilization of the means of production. It goes without saying that commodity-and-money relationships within a single form of property can exist only among different possessors, who

have become separated from the owners.

The separation of the possessor from the owner gives rise to special economic relationships within society. The possessor pays the owner of the given means of production a portion of the surplus product for their use, for example, a man who rents land pays rent to the landowner. Consequently, in this case, possession is a right of disposition in the sense of utilization of the means of production, related to specific forms of acquisition. However, possession is not acquisition of the means of production. The combination of disposition, utilization, and acquisition in the meanings and relationships listed above, is that which characterizes separated possession. The forms of ownership determine the forms of separation of possession. Thus, possession as property, and possession as disposition of the means of production require strict differentiation only in terms of the utilization of the means of production.

Under socialism, possession also does not coincide with ownership. In the USSR, the land, as an object of agriculture, is possessed by the collective farms, while the ownership of the land is public, governmental. Within the government-owned sector as well, possession is, in a definite sense, separated from ownership. It is understood that the foundations of separation of possession from ownership under socialism are different in principle from those in pre-socialist societies. In socialist society, it does not include relationships of private appropriation and exploitation of wage labor. It expresses relationships of comradely cooperation of workers in a socialist society, free of exploitation. The economic and operational independence of government enterprises, their activity in the field of cost accounting, characterize a specific form of possession, distinctive from the ownership of these means of production.

Socialist property conditions an incomplete, limited form of separation of possession from ownership. Under socialism, there is a unified, inseparable, general public property in the means of production. The socialist state does not share its ownership of the means of production with the individual enterprises and their personnel. With us, government enterprises are not group owners, and cannot enter commodity-and-money relationships as owners. However, they do realize commodity-and-money relationships on the basis of an incomplete, limited and unique type of possession. This possession is a necessary condition for the development and reinforcement of general public socialist property. Possession does not at all provide the possessor the right to sell (to alienate in the form of purchase and sale) or to transfer to anyone, functioning means of production, without special permission to do this from the owner. The limited nature of possession of a government enterprise under socialism, and its unique form are expressed in the fact that, in the first place, the enterprise organizes its production activity on the basis of government plans; it is operated under government standards of working time, of wages, etc. In the second place, the government-owned enterprise acquires a portion of the value of the goods produced for the benefit of the members of its staff, in the form of specific funds for particular purposes, the standards for the distribution of which are, for the most part, established in advance by the government (the wage fund, the enterprise fund, etc.). In the third place, property relationships and relationships of possession in the enterprise are realized economically through its manager, an agent of the state, and not through an agency of the collective personnel of workers and office employees.

Therefore, the subject who possesses appears to us not in the form of the collective personnel of workers and office workers, but as a government enterprise. Consequently,

the manager of the enterprise gives economic reality not only to possession, but to the right of property at the will of the owner and in his name (this being the socialist government), with active participation of the masses in the administration of production through trade unions, production conferences, etc. Thus, a government enterprise in the USSR is not a complete, but a limited possessor of the means of production, and is a possessor, moreover, in a unique form. What are the causes for these specific relationships of ownership and possession within the government-owned sector? They are determined by the nature of socialist relationships of production, and the level of development of government, socialist property. At the socialist stage of the development of society, it is essential that the individual enterprises have a material incentive in increasing production, in raising the productivity of labor, and in reducing expenditures upon the production of each unit of product. It is to this that the degree of independence in disposition and utilization of the means of production is related.

Means of production belonging to the state are disposed of (utilized) by government-owned enterprises, on a basis of limited possession. From this flow specific forms of acquisition. A portion of the monetary income acquired as the result of the sale of the produce produced is utilized by the government-owned enterprise for acquisition of the necessary means of production and payment for the labor of the workers in the given enterprise. Along with this, each enterprise has definite economic obligations to the socialist state. The cost accounting of government enterprises is thus related to specific forms of acquisition on the basis of limited possession distinguished from ownership of the means of production.

This form of government, socialist ownership, serves as a basis for commodity-and-money relationships among government enterprises. (6) Some enterprises are required not merely to transfer their products out of enterprises, but to sell them; not merely to receive raw materials, machines, equipment, etc., but to buy them. However, to the degree that the relationships among government enterprises are relationships not among owners, but among possessors within the limits of a single ownership, they have unique characteristics and are more limited than the commodity relationships among owners. Specifically, government enterprises, not being owners, are limited in terms of the purchase and sale of their basic equipment: fixed capital assigned to an enterprise is generally not subject to purchase and sale.

However, it is impossible to contend that the enterprise appears merely as a middleman between the socialist state as owner of the means of production and the personnel of the enterprise in transferring to their personal ownership a corresponding share of the portion of the national income they have produced. The entire collective personnel has a material interest in the production and sale of the product, and in the continuous rise and perfection of production. The interest not only of individual members, but of the entire collective of the enterprise, stimulates the collective as a whole productively and rationally to utilize the means of production entrusted to it by the socialist state, which is their owner. On this basis, the government enterprise and its collective have their own interests to some degree, which, it will be understood, are not in conflict with those of the government. The provision of a personal material incentive, and an incentive to the entire collective in the work of the enterprise, is a major condition for the consistent realization of cost accounting, the successful fulfillment of national economic plans established by the

socialist government.

Being an incomplete possessor of the means of production, the enterprise, as already indicated, does have a certain degree of operational business independence. If it fulfills its state plans, it is free to accept orders from other enterprises, over and above the plan, for the manufacturing of products, and to issue orders to other enterprises for the products it needs; it can set prices for products and rates for services for which prices and rates approved by the appropriate agencies do not exist; it can change technological production processes; it can receive credit from the bank to develop its production and to sell the results thereof; it can acquire building materials from enterprises in local industry; it can realize (sell) means of production that are surplus and unnecessary to it. The government enterprise has a fund of its own, a considerable portion of which is utilized to pay bonuses to the personnel, to improve their living conditions, to maintain kindergartens and day nurseries, palaces of culture, etc. The wage fund of each enterprise varies in accordance with its fulfillment or overfulfillment of the production plan. All this characterizes the specific and special form of separation of possession within the framework of government socialist ownership.

Thus, the specific form of separation of possession gives rise to commodity-and-money relationships within the government sector, for the existence of these relationships is impossible without alienation of the product to other government enterprises, and without a simultaneous equivalent compensation for their value.

In the presence of the limited possession, distinct from ownership, labor has certain specific characteristics at each individual enterprise. While labor at all socialist enterprises is directly social, it appears at each individual enterprise as special, concrete labor, as distinct from general, abstract labor. The labor of the individual worker and the individual collective demand additional social recognition under socialism. And this is carried out in the process of commodity-and-monetary relationships.

Consequently, the limited possession of the means of production, distinct from ownership, finds its reflection under socialism in the non-antagonistic contradiction between specialized and general labor, between concrete and abstract labor, in the contradiction between use value and the value of the commodity, that is, in all the fundamental categories of commodity production.

The relationships of possession and ownership within the government sector under socialism correspond with the principle of centralism in the management of the economy. The category of possession as differentiated from ownership economically defines the responsibilities and rights of the enterprise and its manager. The government does not merely grant to the collective of workers and office personnel, headed by the management, a place to work, but gives them, for their incomplete possession, enormous material values that are public property. Therefore, this public property must be used economically, wisely and sparingly, in accordance with government standards. In addition thereto, the limited possession on the basis of socialist ownership means that it is impossible to permit excessive decentralization of the management of the economy. Possession on the basis of socialist national ownership does not mean the granting of such independence as would give rise to anarchy and spontaneity to the individual government enterprises. "... The greatest distortion of the basic fundamentals of Soviet power, and a complete rejection of socialism," V. I. Lenin pointed out, "is any legalization, direct or indirect, of ownership by the workers of an

individual factory or individual trade of their products, or of their right to weaken or inhibit the dispositions of general governmental power." (7)

There was a time when the Party, headed by the great Lenin, exposed and routed the anarchal-sindicalist group called the "Workers' Opposition." The 10th Congress of the Party indicated that the ideas of the "Workers' Opposition" which were posed to transfer management of all the national wealth to the notorious "All-Russian Congress of Producers," etc., were fundamentally theoretically incorrect and in contradiction to practical experience. The resolutions of the Party Congress on the syndicalist and anarchist deviation constituted a major contribution to the creative development of the theory of scientific socialism and have been confirmed by the entire course of the upbuilding of socialism in the USSR and the lands of people's democracy. It is not out of place to remember this today, inasmuch as the decisions of the 21st Congress of the Party remain fully pertinent, and serve as a sharp edge in the struggle against revisionist and reformist pseudo-theories on the nature of national socialist property and the administration of the economy.

"We," wrote Lenin, "stand for democratic centralism. It is necessary to understand clearly how greatly democratic centralism differs on the one hand from bureaucratic centralism, and on the other from anarchism." (8) Excessive decentralization of the management of the economy, combined with localist tendencies, subvert public socialist property and socialist planning, and place the collective personnel of the individual enterprises in a superior position, creating conditions in which they can grow rich at the expense of society and become, in the last analysis, group owners of means of production.

Without permitting the conversion of possession of general public means of production into group ownership, it is also necessary to avoid the other extreme: excessive centralization in the administration of the national economy, under which the initiative of the collective of the enterprise is limited, and its material interest in the development and improvement of production is weakened. As far back as 1918, V. I. Lenin wrote "Each factory, each cooperative and agricultural enterprise, each settlement ... is today, in the sense of the democratic foundations of the Soviet government, an independent commune with an internal organization of labor." (9) In the Current Tasks of the Soviet Government, Lenin wrote "Each factory and each village is a producing and consuming commune having the right to and obligation to apply general Soviet legislation in its own way..., and, in its own way, to resolve the problem of accounting for production and the distribution of products." (10)

Under the present conditions, further strengthening of the operational business independence of government enterprises, and extension of their rights is necessary. Our press has already seen proposals put forth to expand the material basis for cost accounting and the rights of the managers of enterprises, to increase the share of profit remaining at the disposal of the enterprise for the development of production and rewarding its personnel, etc. All this will doubtless be of much value to the socialist economy, if of course, a necessary sense of proportion is observed therein. A whole series of immediate economic problems, such as that of the proper use of the wage fund, the improved employment of equipment, the modernization of equipment, the most rational utilization of circulating funds, etc., can today be successfully resolved only on the basis of a corresponding expansion of the rights of the enterprises. The Communist Party and the Soviet government are consistently carrying out an expansion of the

rights of the local agencies and enterprises in the leadership of production.

The definite degree of separation of possession from ownership in the government-owned sector will, in our opinion, determine the need for commodity-and-money relationships in cases in which the general public form of property will, in any given socialist country, become the single form of property. It appears to us that the possibility is not excluded, that there may be a socialist country in which a single general public form of property will come into being before complete communism has been attained. In that case, not only will commodity-and-money relationships exist, but they will develop if the conditions under which individual enterprises have, to some degree, to be the possessors of their means of production, will still remain. Only in the higher stage of communism will the separation of possession from the general public communist property disappear. Possession will then completely merge with communist social property and the need for commodity production, with its laws and categories, will disappear. Under these conditions, it must be borne in mind that along with the process of development and reinforcement of commodity-and-money relationships under socialism, and particularly in the period of advancing upbuilding of communism, a narrowing and, consequently, a gradual dying-out of these relations will occur because of the ever-increasing satisfaction of the needs of the members of society out of funds for public consumption, that is, free of charge (free medical care, education, maintenance of children at government expense in kindergartens and day nurseries, etc.).

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- (1) Karl Marx, Capital, Volume 1, 1954, p. 94 (Russian Edition).
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- (3) See Problems of Economics, No. 10, 1958, p. 105 (Russian Edition).
- (4) Karl Marx, Forms Preceding Capitalist Production, Political Press, 1940, p. 11 (Russian Edition).
- (5) V. I. Lenin, Collected Works, Volume 24, p. 458 (Russian Edition).
- (6) Academician A. V. Venediktov observes correctly, in our opinion, that the government-owned socialist enterprise, which does not have rights of ownership, does possess authority both in terms of possession and utilization and disposition of the government property assigned thereto, otherwise it would "be difficult to explain how the purchase and sale occurring among socialist government-owned enterprises—in the absence of transfer of the right of possession from the seller to the buyer — remains purchase and sale." (A. V. Venediktov, Government Socialist Ownership, Press of the Academy of Sciences of the USSR, 1948, p. 355).
- (7) V. I. Lenin, On Democracy and the Socialist Nature of the Soviet Government, (Pravda, April 22, 1957).
- (8) V. I. Lenin, Collected Works, Volume 27, p. 80 (Russian Edition).
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G. Dikhtyar:

The Need for Commodity Production Under Socialism

The discussion articles published earlier in the journal Voprosy Ekonomiki on the need for and nature of commodity production under socialism were chiefly aimed at an explanation of the existence of commodity production under socialism in the presence of two forms of socialist ownership. While, to be sure, these articles did not completely ignore the two forms of socialist ownership as determinants of the need for commodity production, they did, however, give prime emphasis to other factors. Thus, Ya. Kronrod wrote that "kolkhoz-cooperative ownership is no more than an additional reason for the existence of commodity production, along with the chief, compelling reason, which is common to all socialist countries and consists in the peculiar characteristics of national socialist ownership." (1) In his opinion, equivalent exchange takes on a commodity form in socialist society because only under such a form of exchange is "socially heterogeneous, unequal labor of varying utility to society, reducible to socially equalized, average social labor." (1) V. Venzher supposed that the chief reasons for the preservation of commodity production under socialism were, firstly, the inadequate development of the productive forces (with social ownership of the means of production and social division of labor) and, secondly, the necessity for personal material incentives to workers to involve them in the results of labor at a time when labor, having become completely socialized, still remains socially heterogeneous. Since, due to the social heterogeneity of labor, its commensuration directly in terms of labor time is impossible, "the socialist society makes use of a commodity-money measure for the reduction of different forms of concrete labor to one unified social index." (3)

The arguments of Comrades Kronrod and Venzher sound unconvincing to us. Equivalent exchange among toilers in a socialist society could in principle, under the specific conditions from which Marx departed, take place in a form other than that of commodity exchange. When speaking of socialism, Marx pointed out that "each individual producer receives back from society exactly as much, after all deductions have been made, as he himself contributed to it." And further: "But, as for the distribution itself of the latter (articles of mass consumption — G. D.) among the individual producers, it is governed by the same principle that prevails in the exchange of equivalent commodity values: a certain quantity of labor in one form is exchanged for an equal quantity of labor in another." (4)

Neither the method of distribution nor, much less, the techniques for computing labor inputs are able to determine the character of production. It would be incorrect to conclude the necessity of commodity production from the convenience of applying the cost method in the computation of labor, because the very category of cost is engendered and determined by the commodity character of production. Commodity-money relations do not constitute an "instrument" to tie in the various forms of concrete labor with each other. They express a certain specific character of production relations, which determine the corresponding form that distribution is to take.

The explanation of the need for commodity production put forward in the article by V. Batyrev, also seems erroneous to us. Comrade Batyrev bases his argument on the premise that the development of socialist production requires,

on the one hand, the material encouragement of its participants and, on the other, surveillance of the operations of each enterprise. The basic form of calculation of the needs of the society and the productive capacities of enterprises, as well as of surveillance of their work, constitute planning levers used by the state. However, in addition to planned leadership and surveillance, the mechanism of commodity-money relations must be applied, the production and exchange of products as commodities must be used, because, in the exchange process, only those commodities are given social recognition that have been produced to meet the needs of the society, and each enterprise is reimbursed only for socially necessary production expenses. Hence, Batyrev writes, "in a socialist economy, commodity production acts as an objectively necessary mechanism for the social control and material encouragement of the activity of each socialist enterprise..." (5)

It is not difficult to perceive that, although it is not the "instrument," by which various forms of concrete labor may be reduced to common terms, that is involved here, but the "mechanism" of social control and material stimulation of the operations of enterprises, i.e., in essence, the mechanism of enterprise self-management through cost accounting, these positions are related and stand very close to each other. They are based on a notion of commodity production, not as an objective economic category expressing a determinate system of production relations, but only as some sort of means or method used by the socialist society for calculation or control in order to influence social life from various sides.

There is no doubt that, since commodity production and commodity circulation exist, they can be used directly to influence the development of social life; commodity-money relations are used by the society as instruments for the distribution, computation and control of the amounts of labor and consumption, and also of the operations of socialist enterprises. But commodity production is not retained just because it constitutes such an instrument; this instrument itself is the only possible, objectively necessary and most highly effective instrument under the conditions of the commodity production that exists in a given economic order regardless of the will and awareness of the people.

What, then, is the chief reason for retaining commodity production under socialism?

We think that, in order to answer this question, the concept itself of commodity production must first be clearly defined and the problems of commodity production be analyzed in their historical, as well as in their logical, aspect. But, there are certain economists who attempt to examine commodity production under socialism apart from the historical development of commodity relations, as though there were no connection whatsoever between pre-socialist and socialist commodity production. It goes without saying that commodity relations under socialism must not be identified with the commodity relations of pre-socialist configurations because the commodity production of each configuration expresses determinate production relations. But this does not preclude the fact that the signs that determine the character of production as of the commodity type are common for different configurations.

Which are these signs? The answer to this question is to be found in Lenin's definition of commodity production: "Commodity production is understood as that organization of the social economy in which products are produced by individual, isolated producers, each of which specializes in the output of some single product, so that the needs of the society must be satisfied through the buying and selling of products (which thereby become commodities) on the

market." (6)

It should be emphasized that Lenin related distribution of labor in society to the isolated producers and their specializations as an indispensable condition of commodity production. He wrote that division of labor in society was to be understood as the specialization "of isolated (N. B.: this is an indispensable condition of commodity production), individual producers engaged in one single branch of industry." (7)

On the basis of Lenin's definition of commodity production, the following signs or features of commodity production may, in our view, be mentioned:

(1) Commodity production is based on division of labor in society which is reflected by the circumstance that the producers are isolated one from the other and each specializes in the output of some product;

(2) Commodity production exists in a social economic system; this is the production of products by discrete producers not for themselves, but for exchange, by means of which, in the final result, the needs of the society are satisfied;

(3) The means of production and the products of labor belong, not to the society as a whole, but to diverse owners, in consequence of which the needs of the society are satisfied, not directly, but through buying and selling, through market exchange. When products are produced for sale on a market, they become commodities.

Such a conception of commodity production explains why the classics of Marxism-Leninism supposed that there would be no need for commodity production in the socialist stage of social development. Since, in pre-socialist configurations, commodity production was determined by the economic interrelations among the various producers isolated from each other by private ownership of the means of production, the transition from private to public ownership, as the founders of Marxism supposed, was to have led to the elimination of commodity production.

However, owing to the operation of the law of the uneven development of capitalism in its imperialistic stage, it became possible to carry out the socialist revolution in one single country. The socialist revolution first triumphed in Russia, where there was a vast mass of petty commodity producers — the peasants. It was precisely this circumstance that constituted the chief reason for the retention of commodity-money relations in the period of transition from capitalism to socialism.

As a result of the Great October Socialist Revolution, the social nature of commodity-money relations underwent fundamental alteration. But the principal condition that determined the retention of commodity production was the necessity for exchange of products between different owners: the state on the one hand, and the millions of petty commodity producers, the peasants, on the other.

The New Economic Policy, the transition to commodity-money relations between industry and agriculture, also necessitated a restoration of monetary forms of labor remuneration, replaced during the War Communism by doles in kind, and the conversion of state enterprises to autonomous management. (This fact from the history of the development of our economy shows, by the way, that it is not monetary labor remuneration and the business autonomy of cost accounting management that are the causes of the existence of commodity-money relations in the socialist society but, on the contrary, commodity production and commodity-money relations that give rise to monetary labor remuneration and the cost accounting management of socialist enterprises.) And the restoration of monetary wages and the introduction of cost accounting management

during the NEP period contributed to the wider development of commodity production and circulation.

The victory of socialism in the USSR meant the rise of a new type of production relations based throughout all areas of the national economy on public ownership of the means of production. However, public ownership exists under two forms — state (national) and kolkhoz-cooperative. Consequently, different owners of the means of production are retained, which specialize in the production of determinate kinds of products and may exchange products only as commodities, i.e., through purchase and sale transactions. Thus in the stage of socialism, too, those basic pre-conditions of commodity production are retained which follow from Lenin's definition.

Comrade Kronrod regards such a treatment of the need for commodity production under socialism as untenable, on the grounds that it supposedly is based on a mechanical analogy with pre-socialist configurations. (8) As we have already noted, commodity production has certain common features in all configurations. If, when establishing the grounds for the need for commodity production under socialism, we depart, not from the various forms of ownership and division of labor in society, but from some other premises, then the very concept of commodity production in the socialist society loses all connection with the concept of commodity production in pre-socialist configurations and appears as a totally new and hitherto unknown concept.

It goes without saying that the "isolatedness" of kolkhozes is not to be identified with the isolatedness of private commodity producers. Private ownership of the means of production separates the commodity producers, sets them off against each other, enhances the bitterness of their competitive struggle among themselves. Kolkhoz-cooperative ownership, on the contrary, unifies the producers of individual collectives, which engage in their activities for the benefit both of the members of the cooperative concerned and of society as a whole. These collectives are not in opposition to each other, they do not constitute individual economies isolated one from the other; they have one object and one task — to build communist society. They are guided in their operations by the State plan. The development of the kolkhoz order is characterized by the growth and consolidation of the non-distributable funds, the erection of inter-kolkhoz production enterprises, which is an important pre-condition for the elevation of kolkhoz ownership to a higher stage of collectivization. But it cannot for all that be denied that the kolkhozes are nevertheless and to a certain extent isolated enterprises. Their "isolatedness" is due to their being based to a considerable degree on the rights of ownership of the given worker collective. The "isolatedness" of kolkhozes is expressed in that each kolkhoz independently plans its production of various forms of produce, determines its own production specialization and makes its own disposition of its materials, manpower and remaining net income. The revenues of kolkhozes, their funds, are not redistributed among the individual kolkhozes. The transfer to the state or to other cooperative organizations of the produce and funds of the kolkhoz can only be carried out on the basis of exchange, of buying and selling.

And so, what with division of labor in society and two forms of socialist ownership, the economic relations of isolated commodity producer collectives among themselves and with state enterprises requires, under socialism, the instrumentality of commodity exchange. And this is the principal reason for the retention and development of a special kind of commodity production. Commodity exchange between city and countryside is the most important sphere

in which cost forms are used under socialism.

At the same time, commodity-money relations are also applied in economic relations among state enterprises. When the economic turnover between the state and kolkhoz sectors is based on commodity-money relations, economic relations among state enterprises must also be conducted in the form of commodity exchange. This follows from the unity of economic processes in the socialist society.

Comrade Zaoztrovsev, in an article printed elsewhere in this issue, regards such an explanation of the need for commodity relations in the state sector as incorrect. At the same time, he criticizes the position advocated by certain economists that the utilization of commodity-money relations within the state sector is based on wages. Such a treatment of the question of the need for commodity production in the state sector is truly untenable. The unity of economic processes in the socialist society, determining as it does the need for commodity-type relations among state enterprises, does not consist in this at all. The point is that, in the process of extensive socialist reproduction, which embraces all spheres and branches of the national economy, diverse economic categories cannot operate. And, if the consumer goods and means of production are exchanged between the state and kolkhoz sectors through buying and selling transactions and constitute commodities, then all the products of socialist production inevitably take on a commodity character.

However, it by no means follows from what has been said that commodity production is introduced into the state sector from without. On the contrary, commodity production is inherent as much to the state as to the kolkhoz-cooperative sector precisely because socialist production relations, under concrete conditions, are based on two forms of public ownership.

It would be incorrect to maintain that recognition of the principal determinant of the need for commodity production under socialism, the presence of two forms of public ownership, "depreciates" the leading role of national ownership. Its leading role by no means consists in that it in itself gives rise to the need for commodity production, but in that, by virtue of its preponderant position in the society, it determines the entire development of socialist production, of socialist production relations and, as the highest form of public ownership, ensures the gradual rise of the level of collectivization of kolkhoz ownership to its level.

Comrade Zaoztrovsev holds that commodity-money relations arise within the state production sector because state enterprises are, to a certain extent, proprietors within the sphere of national ownership. We cannot agree with such a stand. Economic relations among state enterprises are not relations among diverse owners of the means of production, but among relatively discrete units of national property which the state has endowed with administrative autonomy. It is characteristic that lawyers defend their position on state enterprises as owners of the means of production with the argument that these enterprises carry out buying and selling transactions among themselves, i.e., that they are linked by commodity-money relations, and Comrade Zaoztrovsev explains the need for commodity-money relations among state enterprises by maintaining that they are owners, although in a limited sense.

Thus, the use of legal standards to establish the character of economic relations among state enterprises results essentially in a vicious circle.

The economic relations that prevail between socialist enterprises — state and kolkhoz, on the one hand, and the members of the socialist society on the other, i.e., the

mutual relations between the public and private property of the workers, is an important condition for the existence of commodity production under socialism. Nor is this an isolated condition. It is related to the circumstance that commodity production is objectively necessary by virtue of the existence of two forms of socialist ownership and, hence, that distribution in accordance with work done can only be accomplished by means of commodity-money relations. That part of the aggregate social product which the participants in socialist production receive in monetary form in payment for their labor contribution, is exchanged through retail trade for the consumer goods that they require. Thus, retail commodity turnover means the consummation of the process of distribution in accordance with work done, the consummation of the economic flow of part of the social product consisting of consumer goods, and the departure of this group of commodities from circulation in society. Herein, by the way, lies one of the distinctions between the circulation of consumer goods and the circulation of the means of production. Means of production are intended for productive consumption, and are accordingly objects of only wholesale commodity circulation. (9) Their circulation in society does not come to an end with their sale by one enterprise to another.

In this connection it should be regarded as necessary and rightful to divide the unified socialist internal market into two broad parts: the consumer market and the market for means of production. Under socialism, these markets develop in close, organic connection in accordance with the fundamental economic law of socialism and the law of proportional national economic development according to plan. The predominant growth in the production of means of production, which leads to the expansion of the market for means of production, ensures a rapid growth in the production of consumer goods and an undeviating rise in the material well-being of the people. At the same time, it should be borne in mind that the market for means of production differs fundamentally from the consumer market because, in the socialist society, the means of production cannot be the objects of untrammelled buying and selling, may not become private property. They are circulated within the state sector or sold to kolkhozes in accordance with the state plan for material and technical supply.

The exchange relations arising between the individual workers is one of the conditions for the existence of commodity production under socialism. These relations are based on the circumstance that kolkhozniks and individual workers and employees have their own individual subsidiary farming plots, and also that kolkhozniks receive part of their trudoden pay in produce. Produce surpluses, obtained from subsidiary farms and in remuneration for trudodens worked, are realized on the kolkhoz market. This commodity exchange among diverse groups of workers differs fundamentally from the relation among private commodity producers in pre-socialistic configurations.

Finally, the economic ties among socialist countries and with capitalist countries constitute an important factor for the retention and development of commodity-money relations under socialism. The unity of the socialist world system requires that the economic interrelations of individual countries, based on international socialist division of labor, be mediated by commodity-money relations. The consolidation and development of these ties determine the expansion of commodity-money relations not only among the various countries of the socialist camp, but also within each of these countries.

Consequently, side by side with the relations between the two forms of public ownership as the foremost determinant

of the need for commodity production under socialism, the economic relations among individual enterprises within the state sector, the relations between socialist ownership and the personal property of the workers, the exchange relations among individual workers based on personal ownership, and the economic ties among countries of the socialist world economic system as well as between socialist and capitalist countries, complementarily determine the development of commodity production in socialist society. Such an account of the conditions making for the retention of commodity production under socialism makes it possible to determine more correctly the prospects for the development of commodity production and circulation during the period of completed communist construction in our country.

The Communist Party, basing itself on Lenin's teachings on economic relations between town and countryside and creatively generalizing from the practice acquired in economic construction in our country, has carried out and is implementing measures to improve agriculture, making fullest possible use for this purpose of commodity-money relations between town and countryside. The reorganization of the machine-tractor stations, the abolition of compulsory deliveries, the institution of new pricing and procurement systems for agricultural produce, have resulted in an expansion of commodity relations between town and countryside. A huge bulk of agricultural products has been drawn into the orbit of commodity exchange which was formerly not included in this sphere, inasmuch as the state used to receive them from the kolkhozes as payment in kind for the work of the MTSes. About 1 billion poods [1 pood equals 36 lbs. — Transl.] of wheat a year, more than 1,400 thousand tons of potatoes, 600–700 thousand tons of raw cotton, over 4 million tons of sugar beets, etc., are involved. The reorganization of the MTSes and the transfer of their equipment to the kolkhozes has also brought it about that the state will sell to the kolkhozes various means of production worth dozens of millions of rubles annually.

This attests not only to the expansion of the sphere of commodity circulation, but also to the new qualitative aspect of economic interrelations between town and country, between the state and the kolkhozes at the present stage. Measures introduced by the Party and the government for the development of agriculture are raising commodity production and circulation to a new level. On the basis of the requirements of the law of correspondence between productive forces and production relations, the Party is eliminating the contradictions that have arisen during the course of communist construction between the growing productive forces and individual obsolescent aspects of production relations. The perfecting of these individual aspects of production relations, expressed, for example, in the reorganization of the MTSes and the transfer of their equipment to the kolkhozes, in the establishment of a new procedure for the purchase of farm produce, etc., gives rise to further changes in the character of commodity circulation between town and countryside, which in turn influences the further development of the productive forces.

The development of agriculture during recent years convincingly shows that, with the existence of two forms of socialist ownership, the expansion of commodity exchange, intensifying as it does the material interest of kolkhozes and their kolkhozniks in the results of production, is the most effective means of increasing the output of agricultural products. Comrade N. S. Khrushchev's report to the December (1958) Plenum of the CC CPSU lays special emphasis on the importance of the development of commodity

relations for the creation of an abundance of agricultural products during the period of transition to communism.

The ratio of commodity output to over-all agricultural output is one of the chief indices of the development of commodity relations between the state and the kolkhozes. Enhanced incentives to kolkhozes and kolkhozniks, and also other measures aimed at expanding socialist agriculture, have led not only to a substantial enlargement of farm production, but to an increase in the commodity-total output of agriculture as well. Thus, for example, whereas 37.7 per cent of the total wheat harvest was purchased by the state in 1953, 41.1 per cent was purchased in 1958, while, between the same two years, the absolute quantity of wheat remaining at the disposal of the kolkhozes and sovkhozes for productive consumption, for meeting the personal requirements of the kolkhozniks and for sale on kolkhoz markets, rose by roughly 63 per cent. But, as a result of the increased commodity-total output ratio of wheat farming, state wheat purchases rose by 84 per cent during this period.

The elimination of payments in produce by the kolkhozes to the state and the development of commodity-money relations is bringing about the increasingly widespread elimination of such payments by kolkhozes to their members. Not only are the absolute monetary incomes of kolkhozniks rising, but also the monetary element in their trudoden wages is increasing at the expense of the produce element. The form itself of monetary kolkhoznik wages is being perfected: a gradual transition is being effected to guaranteed wages in accordance with monetary evaluations of all forms of labor, the procedure of monthly advances to kolkhozniks is receiving more widespread application, etc.

As noted in the resolution of the December (1958) Plenum of the CC CPSU, many kolkhozes are changing over from the evaluation of labor in terms of trudodens to the new, more progressive form of labor computation and remuneration aimed at further enhancing the productivity of labor and the material interest of the kolkhozniks in increasing agricultural production.

As the level of development of the communal farming sector of the kolkhozes rises, the economic importance of the subsidiary farming of kolkhozniks is gradually declining. This means, on the one hand, that the role of commodity-money relations in the countryside and in its interrelations with the city is expanding and will expand even more, and, on the other hand, that the importance of personal, subsidiary farming is diminishing and will gradually disappear as one of the supplementary determinants of the need for commodity production.

The development of commodity production and the expansion of the capacity of the internal market is assisted to a tremendous extent by the steady growth of workers' and employees' incomes as a result of the rise of labor productivity, the improvement of their skills and qualifications, the perfecting of the wage system, and also by increasing allocations for social-cultural measures.

Thanks to the growth of agricultural production, state industry is now receiving more and more raw materials from the countryside, and city workers are getting more food products, such as milk, meat, vegetables, fruits and others. At the same time, the volume of village retail trade is rising. During the five-year period between 1953 and 1957, the consumer cooperatives alone sold the rural population more than 2.2 times as many commodities than during the previous five-year period. Between 1957 and 1958, the commodity turnover of the consumer cooperatives underwent a further increase of roughly 6 per cent. As approved by the XXist Congress of the CPSU, the control figures for the development of the USSR between 1959 and 1965 provide for the huge development of production and commodity circulation in our country. By expanding the production of consumer goods and raising personal incomes in the population, the retail commodity turnover of state and cooperative trade will be increased by about 62 per cent during the seven-year period. This increase in retail commodity turnover will be roughly equivalent in its absolute magnitude (in terms of comparable prices) to the growth of commodity turnover in our country over the preceding 20 years. Retail commodity turnover will develop most rapidly in rural areas.

The further consolidation and development of commodity production and circulation is one of the important factors for the successful construction of the communist society in our country. Only when the means of production have been unified under national communist ownership to achieve an abundance of products through the development of the productive forces, and labor has become the first vital requirement, will the passage of material goods from one branch of the national economy also be effected for the satisfaction of the needs of the members of the communist society without the mediation of commodity-money relations.

Literature Cited

- (1) Voprosy Ekonomiki, No. 10, 1958, p. 106.
- (2) Ibid., loc. cit.
- (3) Voprosy Ekonomiki, No. 8, 1958, p. 117.
- (4) K. Marx and F. Engels, Works, Volume XV, p. 274.
- (5) Voprosy Ekonomiki, No. 8, 1958, p. 112.
- (6) V.I. Lenin, Works, Volume I, p. 77.
- (7) Ibid., loc. cit.
- (8) See Voprosy Ekonomiki, No. 10, 1958, p. 103.
- (9) Unfortunately, the prevailing practice in the computation of commodity circulation in our country not infrequently ignores this view. Thus, according to instructions of the Central Statistical Administration of the USSR, the sale of various types of means of production to kolkhozes by consumer cooperative organizations is attributed for some reason not to wholesale, but to retail commodity circulation or, in other words, is lumped together with the sale of consumer goods.

L. Voznesensky, F. Volkov and
G. Khromushin:

Criticism of Modern Bourgeois, Reformist and Revisionist Economic Theories

An international scientific conference was held in December, 1958, in Moscow, devoted to the criticism of modern anti-Marxist economic theories. Professors, instructors and post-graduate students of the institutions of higher learning of union republics, learned scientific research institutes (the Institute of World Economics and International Relations of the AS USSR, the Institute of Economics of the AS USSR, the Academy of Social Sciences attached to the CC CPSU, and others) and representatives of several journals took part in the work of the conference. 27 reports were heard, and 46 conference members delivered discussions on them.

In his remarks to open the conference, M. A. Prokofiev, Deputy Minister of Higher Education of the USSR, dwelt on the principal aims of the conference.

Prof. N. Tsagolov (Moscow State University) read a report on "Modern Bourgeois Political Economy — an Ideological Weapon of Imperialism," in which he emphasized that in the 18th and 19th centuries all bourgeois economists regarded "spontaneous" economic development, without government intervention, as axiomatic. They asserted that capitalist production relations were able to reproduce themselves on a broad scale in a spontaneous and purely automatic manner. In the 20th century bourgeois economists rejected this interpretation of capitalism. They not only cast doubt on the spontaneous mechanism of capitalist production, but also put forward the thesis that, if left to its own spontaneous devices, capitalism was in danger of collapse. This attests to the shattering of the faith of bourgeois economists in the "internal" strength of capitalism. The objective basis of this recent development in the evolution of bourgeois political economy is traceable to indisputable historical facts: the unprecedented exacerbation of the economic contradictions of capitalism, the rise of state-monopolistic capitalism.

Bourgeois economists now look upon the state as a "wonder-working" force, supposedly capable of transforming the rickety mechanism of the capitalist economic structure into a "well-coordinated and workable system." While appealing to state intervention as a factor for ensuring the continuity of the reproduction process, they openly espouse a position of voluntarism. The bourgeois economists theoretically "vindicate" subjectivism and deny the objectivity of economic laws. This represents not merely a crisis, but the bankruptcy of modern bourgeois political economy.

They attempt to justify the thesis of a new type of interrelation between the bourgeois state and economy through their theories of the possibility of crisis-free development, of the possibility of planning under capitalism and of the regulating activity of the modern, class-transcending bourgeois state. Unlike the 19th century economists, the modern apologists of capitalism maintain that the purely spontaneous elimination of crises is prevented by

insurmountable obstacles, which may only be overcome by centralized intervention from without (while preserving the inviolability of capitalism and its foundation — private property). They attempt to find and recommend diverse methods of such intervention.

The outlines of a "bloc" of bourgeois economists, reformists and revisionists have emerged at the present time on these questions. The members of this "bloc" exert influence on each other. This is why to debunk reformism and revisionism in political economy is to debunk above all the fundamental ideas of modern bourgeois political economy.

Prof. I. G. Blyumin (Moscow State University) read a report on "The Basic Tendencies in Modern Bourgeois Political Economy." The age of imperialism, he said, marks the decay of bourgeois culture, science and ideology. This decay is especially perceptible in the crisis of bourgeois political economy, which is obliged to acknowledge the bad state, the instability, of capitalism. The bourgeois economists are busily searching for ways to shore up capitalist economy and to attenuate economic crises and inflationary processes. To this end they are inventing diverse theories on the "transformation of capitalism," the final purport of which is reducible to the assertion that modern capitalism is supposedly ridding itself of its defects.

One bourgeois economist sees the key to the "transformation of capitalism" in regulation of the economy by the state. This is the most important tendency in modern bourgeois apologetics.

The second tendency of modern bourgeois apologetics boils down to attempts to prove that purely spontaneous processes can ensure the harmonious development of capitalist political economy. It is this idea especially that is at the bottom of the notorious theory of "national capitalism," whose advocates deny the supremacy of the capitalists in modern bourgeois society. This is eloquently exemplified by the utterance of the American economist A. Berle, who states that now "we have capital, and also capitalism. The capitalist is reduced to nothing. He somehow largely disappears from the picture." (1)

And finally, the third tendency, represented by the theory of the "transformation of capitalism," advances the spurious proposition that modern technical developments automatically ensure the fundamental reconstruction of social relations and the resolution of all the contradictions of capitalism. For example, it is maintained in the writings of the French economist J. Fourastie that "capitalism has been completely destroyed by technical progress." (2) Such statements are based on the completely false assumption that technical development is a self-contained process which brings about social upheavals in complete independence from property relations.

A report on "The Bourgeois and Revisionist Apologia for State Monopolistic Capitalism" was read by Prof. A. I. Shneyerson (of the Academy of Social Sciences attached to the CC CPSU). He remarked in particular that, whereas in the past the programs of social-democratic parties (for example, in the Linz program of the Austrian socialist party in 1926) socialism was regarded as the socialization of production, today (for example, in the program of the Austrian socialist party in 1958) it is viewed as a "co-existence of capitalistic and socialistic principles, and the

state itself as "the aggregate citizenry." Thus the reformist conception is brought into line with the bourgeois appraisal of modern capitalism, the trends of its future development and the role of the state. Modern revisionism also concurs in this view.

Master of Economic Sciences L. B. Alter (of the journal *Planovoye Khozyaistvo — Planned Economy*) gave a critique of the "planning" theories of capitalist economics. He emphasized that such theories are a form of ideological attack by modern bourgeois political economy against socialism and enter into the over-all conception of the "transformation of modern capitalism." The ideologues of imperialism speak of a "revolution in the economic functions of the state" (G. M. Clark). This theory has been advanced in diverse forms at various stages in the general crisis of capitalism. In the twenties, Sombart, Hilferding and others (3) propagandized the idea of "organized capitalism." In the thirties, Millet, Lorwin, Galloway and others (4) proposed a theory of "planned capitalism," which constituted, in essence, an attempt to prove, on the example of the measures taken by the Hoover and Roosevelt administrations, the feasibility of national economic planning regardless of the social order. This theory has turned up since the war as the theory of "regulated or guided economy."

The bourgeois economists who, in the thirties, advocated the theory of "operational planning," subsequently advanced the theory of "institutional planning," which is methodologically based on a peculiar synthesis of American institutionalism and Keynesianism. According to the concept of "institutional planning," the bourgeois state is capable of eliminating production anarchy through the coordination of economic institutions — budget, credit, monetary circulation, etc. Alter showed that the development of state-monopolistic capitalism is accompanied by an expansion of the economic functions of the bourgeois state and that its regulatory effectiveness is nevertheless subject to the operation of the spontaneous laws of capitalism. The levers of finance and credit are only serviceable planning instruments in a socialist economy, based on public ownership.

Alter then passed on to the so-called problem of "long-range planning" posed by the theoreticians of the "regulated economy" (P. Drucker, R. Patton, B. Higgins and others). (5) He noted that this problem amounts to nothing more than the arrival at various prognoses on volume and composition changes that may transpire in the economic structure during the next several years. At the same time, however, a prognosis is not a plan. And practice shows, moreover, that prognoses drawn up by bourgeois economists are not to be trusted, since they are based on bourgeois theory and methodology. Alter illustrated this point with a description of prognoses in the USA (report by Paley and others), (6) and also of the distinctive features of so-called "index planning" in France.

Prof. A. Ya. Boyarsky (Moscow State University) devoted his lecture to problems of economic measurement.

Certain partial results in econometrics can be obtained on problems of concrete, applied economics with the aid of methods for the mathematical-statistical measurement of the dynamics of and relations among phenomena. However, only a few empirical regularities are established in this kind of specialized research. In spite of this, bourgeois economists absolutize mathematical and statistical procedures and attempt to create by their means a "new" political economy. This is best exemplified by the so-called "theory of games." The authors of this theory (7) emphasize that it is based on the idea of struggle. They see life in society as a gambling house where everybody tries to win, but may select only one of the available strategies.

According to the "theory of games," everything depends on these factors: information, skill in the choice of strategy, chance. The attempt to transform this theory into the alpha and omega of scientific methodology is explained in that it, in a new way, resurrects the idea that capital offers equal opportunities to all. "Mathematical models" are transmogrified in the hands of the bourgeois economists into an instrument of apologetics for the capitalist order.

A report in "Criticism of the Bourgeois Theories of the Post-War Cycle," by A. I. Bechin (Institute of World Economics and International Relations of the AS USSR), emphasized that the analysis of the post-war cycle is very important for the unmasking of the anti-scientific nature of recent bourgeois and revisionistic theories, the conclusions of which are based on the experience of the few years of post-war cyclical up-turn.

During the post-war period, bourgeois economists have begun to assert that cyclical development has lost its periodic character since the end of the second world war — the cycle has disappeared and capitalism has freed itself of overproduction crises. Thus, the American economist W. Wilson wrote that changes have now taken place in the capitalist economic structure which "to a considerable degree have rendered the industrial cycle harmless." (8) The same idea is propagandized by the American economist Hansen. (9) The bourgeois apologists perceive the causes for the changing character of capitalism not only in the "transformation of capitalism," but also in the augmented effect of such artificial factors as war, militarization, government measures to stabilize production, etc., by means of which the state is supposedly able to regulate the economy.

Problems of criticism of bourgeois theories of economic cycles were broadly treated in the departmental sessions. Master of Economic Sciences R. Kh. Khafizov (Institute of World Economics and International Relations) read a report on "The Criticism of Bourgeois Theories of Crisis-Free Development." He remarked that two arguments are usually adduced in proof of the possibility of "crisis-free development": the advances in the science of economics, which have purportedly penetrated the "secret" of crises, and the new role of the state. The bourgeois state is quite actively intervening in the economic life of its country. For example, the value of property held directly by the American government is about 200 billion dollars, which is roughly one fifth of all the national wealth of the country. The state provides and gets paid for about one fifth of the goods and services produced and performed in the USA. (10) However, this does not imply in the least that the state has helped to eliminate the spontaneous character of capitalist production.

The theoreticians of "crisis-free capitalism" look forward not only to a "new regulatory function" for the state, but also to the creation of a system of "automatic business stabilizers," which are to be interpreted as including social services and tax policy. Thus, the well-known American economist Slichter wrote that "the United States is successfully achieving such a political system and such economic conditions as will be favorable to stable development." (11) As these economists see it, the decline in workers' income during a production slump is allegedly compensated for by increased unemployment relief payments, and, partially, by lower income taxes as well. The facts indicate, however, that this procedure compensates for only a pitifully low proportion of curtailed workers' incomes. Thus, from January to June, 1954 (during the 1953-54 crisis period), the wages earned by workers covered by unemployment compensation amounted to 5.6 billion dollars

less than the total paid out during the preceding half-year, while unemployment compensation payments rose by less than 9.66 billion dollars. (12) These facts attest irrefutably to the vacuity of the arguments advanced by the advocates of "crisis-free development."

The so-called theory of "war prosperity" occupies a special position among the bourgeois theories of the "transformation of capitalism." This theory was extensively criticized in the paper read by Master of Economic Sciences A. B. Nikolayev (Moscow State University). The speaker noted that there are two schools of partisans of this theory: the economists who openly support the armaments race (A. Hansen, S. Slichter and others) (13), and the economists who oppose the armaments race for political reasons (C. Bowles, S. Harris and others) (14), but who at the same time prove that the armaments race can supposedly help to ensure "permanent prosperity." Finally, several economists (Winse and others) abstract themselves altogether from militarization and its influence on the course of capitalist production.

The arguments of the proponents of "war prosperity" are reducible to the assertions that the growth of war production allegedly affects the economic structure in the same way as the development of any other form of production; the demand of the armed forces for production is unlimited; militarization augments demand for the output of light industry and, on the other hand, stimulates investments in fixed capital and creates a stable demand for the output of heavy industry. For the question of the effect of militarization on crises in general, the bourgeois economists substitute the question of its effect on some specific crisis.

War production differs fundamentally from the other forms of social production in that it caters to parasitic war consumption. In the final analysis, its output is society's loss. Thus, during the period from 1953 to 1955 alone, the USA Department of Defense destroyed or sold as scrap military equipment to the value of 2 billion dollars. (15) Not only is the use value of military production destroyed, but also its inherent value, which means that the national income of the society is being dissipated.

Militarization really does bring about considerable changes in all reproduction. It stimulates increasing capital investment not only in the purely military branches of industry, but also in those branches that supply their means of production. But, during the militarization process, capital investments continue to grow anarchically, fail to take account of the true limits of the market, and do not ensure capitalism against crises, inasmuch as one of the direct causes of crises lies, not in insufficient accumulation, but in too rapid, anarchic accumulation, aimed at increasing monopolistic profits. Nor is militarization able to eliminate unemployment. Increased demand for military production temporarily increases market capacity regardless of popular consumption, thereby making possible a certain postponement of the ripening crisis. This very same factor, however, leads in the long run to an exacerbation of contradictions and paves the way for a still more profound crisis later on.

Prof. E. Ya. Bregel (Moscow Institute of Economics and Statistics) read a paper on the "Criticism of Modern Bourgeois Inflation Theories." Comrade Bregel remarked that every theory of inflation should supply answers to three basic questions: What is the nature of inflation, which are its causes and which its consequences. When dealing with these questions, bourgeois economists strive to extend the boundaries of the concept of "inflation" as far as possible so as to emasculate its class nature. There are three typical treatments of this concept at the present time: the

identification of inflation with rising commodity prices (Luthringer, Chandler, Cline, Enthoven and others) (16), its interpretation as excess commodity demand (Hansen, Giersch and others) (17), and the definition of inflation as an extreme growth of some economic phenomenon (Hoepker-Aschoff). (18)

The reformist conception of inflation follows in the footsteps of the bourgeois economists. (19) The bourgeois interpretations of inflation are extremely vacuous and leave it qualitatively, socially and economically indeterminate. Commodity price rises can be due to all sorts of causes: price hikes by the monopolies, the declining price of precious metals, rising costs of the commodities themselves, a supply in excess of demand during the cyclical upswing, or simply as an effect of seasonal and other temporary factors. A general rise in prices could also be brought about as a result of a glut in the circulation channels by excessive stocks of paper money.

Bourgeois economists, detaching inflation from paper currency circulation, "prove" even the possibility of a "gold inflation," which is pure fantasy.

The bourgeois theories of inflation are apologetic in character; they attempt to depict the cyclical fluctuations of capitalist production as an alternation of inflation with deflation. But the question of the causes of inflation is replaced by them with the question of the causes of rising prices (excess commodity demand, rising production costs) so as to shift the blame for inflation onto the toiling masses, who are allegedly responsible for the inflation because consumer demand increases and production costs go up (due to wage increases). For example, the American economist Chandler stated that in the USA between 1940 and 1948, "doubled wage rates were an important inflationary factor... There would be less inflation if wage rates did not rise so steeply." (20)

Master of Economic Sciences A. V. Yevreiskov (Institute of World Economics and International Relations) devoted his talk to the theory of the "inflationary spiral." He showed that, unlike prices for means of production, which exert a decisive influence on commodity prices, wages, as a converted form of the value of a specific commodity — manpower — constitute part of newly created value. Other things being equal, wage level changes lead neither to higher nor to lower prices, but to changes in the magnitude of surplus value.

The paper read by Prof. Sh. B. Lief (Moscow State University) dealt critically with the theory of "free enterprise." The bourgeois and revisionistic theories of "neo-liberalism" reflect the evolution of bourgeois political economy during the general crisis of capitalism. It is asserted in these theories that the "seller's market situation" is a decisive indicator of monopoly. They maintain that a monopoly can be said to exist if, for any given commodity, there is only one seller on the market. Under such an approach, modern monopoly is identified with the monopoly that ensues from the particular use value of a commodity, from its rarity. For example, the American economist Chamberlin asserts that any commodity producer who is in a position to produce a commodity which is different from other commodities, is a monopolist. (21) Another economist, Machlup, states that monopolies have always existed and do not constitute a peculiar feature of modern capitalism. (22) By thus distorting the nature of monopoly, the bourgeois economists are also distorting the nature of competition, rejecting the character of competition as a factor which leads, via the concentration of production, to the emergence of monopoly.

The theories of "free enterprise" were criticized in the

addresses of the Masters of Economic Science V. Shvedova (Institute of World Economics and International Relations), A. K. Eremenko (Kiev State University) and Yu. K. Fishevsky (Academy of Social Sciences attached to the CC CPSU), and of S. G. Zlupko (Lvov State University), and others.

Yu. K. Fishevsky criticized the so-called theory of the social market economy," which is most widely advocated in the German Federal Republic. The defenders of this theory formally come out against state intervention in economic life and against the monopolization of the economic structure. Above all, they propose the replacement of the term "capitalism" by some other "neutral and unimpugned concept, for example, by the concept of the social market economy." (23) The import of this concept is reduced by them to dissertations on "free competition," just distribution, changing the condition of the working class, etc. The theoreticians of the "market economy" start not with production, but with the processes of circulation and of the objective efforts of proprietors for market hegemony. They sever the concept of monopoly from the specific production relations.

Serious attention was given to criticism of the reformist theories of a "second industrial revolution." Doctor of Economic Sciences I. N. Dvorkin (Institute of World Economics and International Relations) read a paper on this subject. At the present time, right-wing socialists assert that a "second industrial revolution" is going on in the capitalist countries, which is bringing in its train an abundance of products, release from exhausting physical labor, etc. Comrade Dvorkin emphasized that the partisans of this theory are attempting to turn to the advantage of capitalist ideologists the mighty changes in science and engineering which, in actuality, do nothing to alter the nature of the production relations of capitalism. The attempt to equate developments in engineering with an "industrial revolution" is theoretically bankrupt and made as an apology for capitalism. Whereas, at the end of the 18th and during the first half of the 19th century, the revolution in technique is the basis for a revolution of production relations, under modern conditions technical development brings about sharp exacerbation of all the contradictions of capitalism.

The theory of the "second industrial revolution" was subjected to criticism in the address of I. G. Adamov, a reader at the Kiev Engineering and Construction Institute, by Master of Economic Sciences V. D. Gerasimov (Odessa Polytechnical Institute), and by I. F. Sidorov (Academy of Social Sciences attached to the CC CPSU).

I. F. Sidorov remarked, particularly, that the theory of a "second industrial revolution" is reducible not only to a special reliance placed by its adherents on automation which, allegedly, is transforming capitalism, but also to their appeal to the workers to bend every effort to bring it to realization. The latter is, essentially, a latent form of the myth of the harmony of the interests of capital and labor under modern conditions.

A paper on "The Collapse of the Theories and Practice of New Forms of Colonialism" was read by V. Ya. Avarin (Institute of World Economics and International Relations).

He emphasized that new forms of colonialism are being masked under cover of the slogan "Struggle against Communism." Bourgeois ideologues, especially in the USA, are trying to conceal the aggressive character of their colonial policies and the colonialistic nature of the aggressive imperialist blocs. As a result of the growing resistance of the peoples to the colonialistic plans of the USA and other imperialist powers, the break-up of the colonial system of

imperialism is continuing and the hour of the total collapse of this system of national oppression is drawing nearer.

Master of Economic Sciences V. M. Kollontai (Institute of World Economics and International Relations) pointed out that the pronouncements of modern bourgeois ideologues amount essentially to the assertion that backward countries can develop economically only along the lines of private capitalist enterprise. The bourgeois economists are seeking to perpetuate the economic backwardness of under-developed countries and their dependence on the imperialist states.

Master of Economic Sciences L. I. Glukharev (Moscow State University) adduced concrete examples drawn from French life, to give a thorough criticism of, in particular, French colonial doctrine. He showed that, from the socio-economic point of view, this doctrine advocates new forms of assimilation. Carrying on with the policy of colonialism, de Gaulle has resorted to the even more subtle demagoguery of declaring all the Algerians to be Frenchmen. He also put forward a so-called "five-year plan" for the development of Algeria, the execution of which would allegedly make possible the elevation of the living standard of the Algerian population to the metropolitan level. But such statements are without foundation. As a matter of fact, according to the computations of French economists, the average Algerian earns from 20 to 30 thousand francs a year, while the average European Frenchman earns 260 thousand francs a year. Consequently, de Gaulle "intends" to raise the income of the Algerians to 10 times its present magnitude in five years. (25) But, owing to the backwardness of the Algerian economy, this goal is unrealistic.

Corresponding Member of the AS USSR A. A. Arzumanyan (Institute of World Economics and International Relations) read a paper on the "Basic Problems of the Marxist-Leninist Theory of the Impoverishment of the Proletariat and Criticism of Anti-Marxist Views on this Question."

Arzumanyan pointed out that the bourgeois, reformist and revisionist economists and politicians have for many decades been incessantly attacking the Marxist-Leninist theory of the impoverishment of the proletariat under capitalism. They have been declaring that impoverishment is an anachronism at the present time.

The purpose of the bourgeois ideologues is to attempt, firstly, to base their offensive on the living standard of the working class, and, secondly, to justify theoretically their rejection of the indispensability of the class struggle and the socialist revolution for the fundamental improvement of the condition of the laboring masses. The Marxist-Leninist theory of the impoverishment of the proletariat brings out, above all, the fact that, under capitalism, labor is made into a commodity. Consequently, the living standard ceiling for the working class is determined by the value of labor. The development of the productive forces under capitalism further and further widens the scope of the exploitation of hired labor by capital. But, since the extent to which workers are put to work depends not on the level of technical progress achieved, but on the value of labor, already this antagonistic contradiction contains the seeds for the deterioration of the condition of the working class under capitalism.

Arzumanyan emphasized that the question of relative impoverishment ordinarily does not become a bone of argumentative contention. The absolute impoverishment of the workers, on the other hand, is a complex and many-sided process characteristic of the condition of hired labor under capitalism as a whole. It is incorrect to reduce the problem of absolute impoverishment to the mere dynamics of real wages. Along with this, it is also necessary to

examine changes in the degree of exploitation and the intensity of labor, in the magnitude of unemployment and rural overpopulation, the competition of cheaper female and child labor, bad housing conditions, the absence of medical services and concern for cultural improvement, and also inadequate social security.

Absolute impoverishment is also reflected by the irrefutable fact that the worker is unable to maintain a normal regime of useful activity, even within the limits objectively set by the capitalist mode of production. Under capitalism, as a rule, wages do not constitute full compensation for the value of labor. Finally, absolute impoverishment is reflected in that the necessary provisions are not made for modern working conditions vital to preserve the health of the workers. Marxist-Leninists, basing themselves on the facts of capitalist reality, maintain that capitalism even today condemns millions of people to idleness, generates huge rural overpopulation, and widely exploits female and child labor. Whereas between 1921 and 1929 the number of the unemployed in the USA averaged 1.4 million persons a year, between 1950 and 1957 it averaged 2.6 million, or almost double.

The dynamics of wages and of the rise of poverty, Comrade Arzumanyan added, is an important problem. It follows from the works of Marx and Lenin that there is an upper and a lower limit to the value of labor. Modern capitalism displays a tendency to depress wages from its highest to its lowest value limit.

The absolute impoverishment of the proletariat is most distinctly discernible in the circumstance that real wages are not constantly approaching the high labor value ceiling. Thus, the Marxist-Leninists have every opportunity to unmask the apologetic fabrications of the bourgeois and reformist ideologues and to demonstrate both theoretically and on statistical data that the proletariat is being impoverished under capitalism.

V. S. Volodin, a reader at Moscow State University, read a paper in "Criticism of Modern Bourgeois Wage Theories."

The reader subjected to criticism three basic modern bourgeois and reformist wage theories: the "production," the "social" and the "regulated" theories. He brought out the bankruptcy of the "production" wage theory, which is based on the mendacious assertion that not only labor, but capital, too, is productive. According to the "social" theory, wages allegedly rise in the course of the development of capitalism owing to the rising productivity of labor, the increasing power and organization of the working class and the beneficial effect of labor legislation. This theory reduces the entire aggregate of the contradictions between capital and labor to contradictions in the distribution of the produced output, which both the capitalists and workers are equally interested in increasing. Bourgeois and reformist economists are attempting to sow the illusion that the condition of the workers can also be fundamentally improved under capitalism, without doing away with the production relations of capitalism. This theory was propagandized as early as the decade of the twenties by the reformist W. Green, at the time the president of the American Federation of Labor. Today all the fundamental positions of this apologetical theory are actively defended by D. Strachey, D. Minney and others. For example, Minney has stated outright that "the interests of the entrepreneurs and those of the workers are rather interdependent than mutually hostile." (26) The facts show, however, that even under present-day capitalism the growth of labor productivity does not result in rising real wages. During the period between 1939 and 1956 alone, in spite of the considerable growth in labor productivity in the processing industries of

the USA, the share of workers' wages in the national income went down 21 per cent.

The theory of "regulated" wages became especially widespread in connection with the development of present-day state-monopolistic capitalism. It is advocated by the followers of Keynes, especially Cole, Wooton and others. (27)

The paper of Reader M. K. Bunkina (Moscow State University) was devoted to criticism of the wage theory advanced by the West-German social-democrats. Comrade Bunkina pointed out the connection between the theoretical notions of reformists (E. Arndt, G. Weisser and others) and the distinctive features of the post-war development of West German imperialism, which is characterized by a consolidation of the position of the monopolies, an expansion of war industry and growing reaction. The German social-democrats are striving by every means to justify theoretically the deeds of the monopolies, calling for the inculcation in the workers of a feeling of satisfaction with labor practices, enticing the working class away from the struggle for higher wage levels. (28) M. K. Bunkina used concrete facts to demonstrate that, in the first place, in comparison with the pre-war period, there has been virtually no increase in real wages and, in the second place, that its increase over the years since the war in some areas still lags considerably behind the rise of labor productivity. Whereas from 1950 to 1955 labor productivity (1936 = 100) rose from 93 to 130 per cent (29), computations by Yu. Kuchinsky indicate that real wages amounted in 1949 to 71 per cent, and in 1954 to 96 per cent of the pre-war level. (30)

The doctrine of the "establishment of human relations" between entrepreneurs and workers was subjected to criticism by Master of Economic Sciences M. G. Moshensky (Scientific Labor and Wage Research Institute). He emphasized that the doctrine of the "establishment of human relations" is a direct result of a social edict of monopolistic capital. The American sociologist Lincoln said that "human relations in industry and business are the American answer to the economic and social insecurity that preys upon the world." (31) West-German Prof. O. Graf asserted at the Rome Conference on "human relations" that this doctrine should neutralize the revolutionary proclivities of the working class. (32) The essentially exploitative nature of this reactionary doctrine stands graphically revealed in the maze of procedures and organizational measures proposed by its advocates: in the system of "reciprocal ties and information," in the talks of "psychological counsellors" with workers, in the measures aimed at creating the illusion of worker participation in management, etc.

Instructor G. B. Khromushin (Moscow State University), in a paper in "Criticism of the 'Income Revolution' Theory," emphasized that this theory enjoys very wide acceptance in the USA. It is the basis for the myth of "people's capitalism." Its emergence was brought about by the fact that the standard of living of the laboring masses is one of the most important aspects of the economic contest between the two world systems — capitalism and socialism. While propagandizing the theory of the "income revolution," bourgeois economists are at pains to prove that the fundamental defects of capitalism have been eliminated. The theoretical bankruptcy of these asseverations lies in that the problems of income distribution are examined in isolation from the character of property. (33) The partisans of this theory stress the enhanced functions of the bourgeois state, declaring its tax policy to be an, as they say, income-levelling factor for all classes in bourgeois society.

The social inferences from the "income revolution" theory come to no more than assertions of the fusion of all groups in the capitalist society into one single "middle class." The bankruptcy of such a theory is best demonstrated by the increasing number of hired laborers in capitalist countries. Anti-Marxist theories on problems of the condition of the workers were criticized by Prof. M. V. Kolganov (Moscow State University), Master of Economic Sciences L. M. Mikina (Moscow State University), M. L. Zak (Moscow State University), and Master of Economic Sciences T. A. Fad'yev (Institute of World Economics and International Relations).

M. V. Kolganov spoke of the necessity of creatively applying Marxism against the bourgeois, reformist and revisionistic theories. He showed that, by the Marxist analysis of the data of bourgeois statistics, we can expose the apologetic claims of the improvement of the condition of the workers in capitalist countries in all their absurdity. The facts show that the budget of the bourgeois state has remained essentially unchanged. It derives its revenues exclusively from taxes. But the largest expenditure items come under the so-called "defense" heading, for which 64 per cent of the entire USA budget is spent. Consequently, the bourgeois state cannot influence changes in income distribution to the benefit of the workers.

Modern Malthusianism was the subject of a critical paper by Master of Economic Sciences V. E. Shlyapentokh (Saratov Zooveterinary Institute). He noted that bourgeois economists place reactionary interpretations upon the causes for the backwardness of underdeveloped countries. Sax and Nuttall, for example, say that the accelerated population growth in underdeveloped countries makes it impossible to accumulate capital from local internal resources because every saving is "swallowed up" by the natural population growth. (34) But the process of capital accumulation is actually determined by the character of the socio-economic relations. The backwardness of underdeveloped countries is due above all to the circumstance that imperialism systematically draws off, by diverse economic and extra-economic methods, the surplus, and often even the necessary products of these countries, and also upholds the feudal rivalries and obstructs industrialization.

Master of Economic Sciences V. V. Veselago (Lvov Polytechnical Institute) directed the attention of the conference to the necessity for more extensive criticism of the Western Neo-Malthusianists, who are distinctively the most aggressive and whose views are close to being Fascist theories.

Master of Economic Sciences E. M. Filatova (Moscow Textile Institute) criticized the modern bourgeois evaluation of the history of Russian economic thought. She dwelt in detail on attempts to distort the economic views of Russian revolutionary democrats, to represent them as opposed to technical progress and to depict them as lacking in independence.

The members of the scientific congress gave a great deal of attention to the criticism of anti-Marxist and anti-revolutionist theories of the transition from capitalism to socialism, and of anti-scientific views on the question of the character of the economic structure of socialism and of the contest between the two world systems — capitalism and socialism. Many papers were heard on these subjects, around which lively debates arose.

Prof. A. M. Rumyantsev (of the journal *Problems of Peace and Socialism*), in a paper in "Criticism of the Basic Economic Notions of Modern Revisionism," showed that, in the present stage, revisionism is the chief danger to the international communist and workers' movement.

Modern revisionism and reformism trace their origins to the bourgeois ideology, and to vulgar bourgeois political economy in particular. However, whereas, after the victory of the proletarian socialist revolution in the USSR, and later in a series of European and Asian countries, reformists of every breed have long since openly espoused the principles of bourgeois political economy, the present-day revisionists, on the other hand, are attempting to dissemble their defection under the banner of pseudo-communism. They are trying to prove that the nature of modern capitalism has undergone fundamental changes. While the British Laborites (Strachey, Cole and others) are openly guided by the bourgeois economists Keynes and Florenz, attempting to prove after them that the capitalist is no longer the central figure of social life, and the French socialists, headed by Guy Mollet, openly advocate the views of the Austro-American economist Schumpeter (especially his idea of the "evaporation" of property in capitalist society), the revisionists build up their theories on just such a vulgar bourgeois economic base, only screened over with a veneer of socialist phraseology. When speaking of modern capitalism, the revisionists assert that the bourgeois state is now becoming independent of the monopolistic bourgeoisie, is putting through progressive labor and social legislation, and is bringing about an even distribution of incomes among all social strata. According to their revisionistic ideas, the "new" economic role of the present-day bourgeois state is allegedly a proof of the emergence of elements of socialism in the womb of capitalism, and the sign of a gradual evolution of capitalism into socialism.

The revisionists attempt to prove that the socialism that has been built in the USSR is a state capitalism; while doing this they lump completely distinct and diverse processes together — the collectivization of production that takes place under state-monopolistic capitalism, and the creation of national socialist ownership, which is possible only after the victory of the proletarian revolution and the establishment of the dictatorship of the proletariat.

Starting from non-Marxist theoretical premises, the revisionists allege that once the working class has seized power in the state, it should as quickly as possible transfer ownership of the means of production directly into the hands of the producers' collectives, and thereby "wither away" as the guiding and directing force for the development of the socialist economy.

Their anti-Leninist interpretation of socialist ownership is characteristic of the revisionists. It is known that socialist ownership takes two forms: state-national and kol-khoz-cooperative. But, in the revisionist view, state socialist ownership stands in opposition to the producers and cannot constitute ownership by the whole society.

The revisionists have the idea that socialist ownership is only ownership by the immediate producers, i.e., by industrial workers, commercial workers, peasants and artisans.

For the revisionists, the only objective laws are those that operate spontaneously, automatically. They do not acknowledge the objective character of the economic laws of socialism, which the society applies consciously for the guidance of the socialist national economy.

Thus, in their statements on the most varied subjects, the revisionists show themselves to be consistent followers of various right-wing socialist theories and opponents of Marxist-Leninist theory.

It is characteristic of all revisionists and right-wing socialists that they break completely with the scientific view of history, with Marxism-Leninism; that they repudiate once and for all the idea of the social revolution and advocate

evolutionary development; that they reject every kind of "compulsion" as, allegedly, a dictatorial method of resolving social questions, inadmissible in the era of class harmony that has set in; that they "transfer" the socialist reconstruction of society from the realm of socio-economic relations to the area of moral-ethical ideals so as in fact to remove the questions of the establishment of the state power of the working class in alliance with the laboring peasant masses, of the destruction of the old at its roots and the creation of new, socialist production relations. The reason for this is that present-day capitalism has allegedly changed. Capitalism, in the view of the revisionists, has ceased to be itself as a result of the emergence of "economic democracy" and the "diffusion of political power" (i.e., the creation of an "ultra-class state"). However, once the process of the direct, immediate transition from capitalism to socialism has been completed, the dictatorship of the proletariat is not merely superfluous, it is even an evil. Nor is there any need, in such a system of views, for a political struggle for the establishment of socialism. The revisionists seek by their ideas to weaken and disarm the working class, to replace Marxist-Leninist political economy by the vulgar bourgeois political economy, to assist monopolistic capital in its ideological struggle against the united camp of the socialist countries.

The great achievements of the USSR and the experience of the other countries of the world socialist camp reveal the utter bankruptcy of revisionistic and right-wing socialistic ideology and practice.

A. A. Korniyenko, a Reader at the Lenin Military-Political Academy, devoted his paper to criticism of revisionist distortions in the methodology of political economy. He emphasized that the methodology of revisionism is based on subjectivism. Revisionism adopts all the methods of Austro-Marxism and bourgeois subjectivism. The Reader further noted that modern revisionism comes out against the principle of the guiding role of the Party in political economy, advancing several theses against it. Firstly, the revisionists deny the self-contained character of Marxist political economy, its principal point of differentiation from bourgeois economic science. Secondly, they allege that politics and truth are mutually antagonistic, that science is incompatible with politics and that, hence, the Marxist-Leninist Parties cannot have their own science while pursuing their political aims. Thirdly, the revisionists proclaim that truth can only be arrived at by the individual thinker and that the collective mind is incapable of enriching economic theory. By this means is denied the capacity of the Marxist-Leninist Parties to develop a theory, and the role of the Party and of its ideological and practical work disparaged. And, fourthly and lastly, the revisionists make the completely incorrect point that, owing to the changes that have taken place in the social structure of present-day capitalism, the most important deduction of Marx as to the world-historical role of the working class must be rejected.

Master of Economic Sciences I. V. Aleshina (Leningrad State University) showed that the over-all causes for the current modernization of reformist theory are, firstly, the growth and consolidation of the world socialist system and, secondly, the growth of state-monopolistic capitalism.

In her account of the modifications made during recent years by the reformists and revisionists in their theories, Aleshina noted three factors: (1) the reformists are seeking to shift the center of social development from the realm of economic relations to that of the superstructure; (2) present-day social-democrats have virtually abandoned the idea of public ownership and have gone over to the defense of private property; (3) the reformists are filling out the

theory of "democratic socialism" with moral-ethical principles.

The reformist and revisionist theories are coming into ever more intimate proximity with bourgeois theories, including Keynesianism.

Master of Economic Sciences A. I. Pokrovsky (Institute of World Economics and International Relations) noted that the partisans of the theory of the "self-liquidation of capitalism" (Schumpeter, Fourastie and others) (35) are attempting to disseminate the illusion that capitalism is capable of transformation without class war. They maintain that the salient defects of capitalism (economic crises, social inequalities, etc.) have already "liquidated themselves" and that the hour is approaching for the total "socialization" of the bourgeois order.

The theories of the automatic "self-liquidation of capitalism" are refuted by the facts of life of the post-war development of capitalist countries: by the increasing concentration of capital, the wiping out of small-holders and middle-sized proprietors, the intensified exploitation of the working class, the rising frequency and bitterness of strikes, etc.

The paper of Master of Economic Sciences G. A. Dadashov (Azerbaijani State University) was also in criticism of the theory of the "self-liquidation of capitalism," and also to the manner in which the problem of the transition from capitalism to socialism is interpreted by French right-wing socialists.

The basic statements of the French right-wing socialists can be reduced, firstly, to a denial of the objective necessity for the proletarian revolution; secondly, to a rejection of the need for the dictatorship of the working class as an instrument for the transformation of the society; thirdly, to an appeal for the preservation of the present class structure, to a rejection of the fundamental transformation of the base and superstructure of bourgeois society.

One theoretician for the French right-wing socialists, L. Laurat (36), asserts that capitalist property is turning into "nobody's," that it is now "evaporating." But we all know that bourgeois ownership is a determinate class relation which has by no means been eliminated and whose oppressiveness is felt by each worker on his own person. Laurat advocates "economic democracy," which calls neither for the socialization nor the nationalization of the means of production. Planning, in his view, combines well with private property. All this is crowned by a superstructure in the form of a non-class state of "universal prosperity." Consequently, behind such reasonings and arguments, the same capitalist society lies hidden, embellished by a quasi-socialistic phraseology.

In a paper on "The Character of Nationalization in England," Master of Economic Sciences I. A. Sokolov (Institute of World Economics and International Relations) noted that the Laborites had once depicted nationalization as the road to socialism, as a peaceful revolution in production relations as a result of which England had allegedly ceased to be a capitalist country. The fact of the matter was that various branches of the economy were nationalized essentially to satisfy the demands of a leading group of monopolists, who were in need of a reduction of costs for fuel, transportation, power-supply, to improve their position on the world market so as to increase their profits. It is known that this "nationalization" was carried out at the expense of the workers. Now monopoly capital in England is opposing further nationalization, and hence the position of the Laborites has changed.

Openly rising to the defense of the interests of the monopolies, the right-wing Laborites assert that, the larger the

monopolistic companies, the greater their economic effectiveness, and that, therefore, there is no need to hand them over to public ownership or even for detailed control and supervision of them by society, inasmuch as they "serve the nation" anyway.

In a paper in "Criticism of Bourgeois and Revisionistic Distortions in Questions of the Character of Socialist Ownership and of the Nature of the Soviet Economic Structure," M. P. Kozlov, an instructor at Moscow State University, showed that, in their most widespread form, the theoretical pronouncements of right-wing opportunists may be stated as follows: state ownership, it is alleged, can, under no circumstances, constitute directly social ownership, and the interests of the state cannot correspond to the interests of the society. By this means the revisionists seek to place state guidance in opposition to the initiative of the masses, the authority of the central agencies in opposition to local autonomy and independence.

In criticizing these assertions, in the view of the speaker, the following Marxist-Leninist positions should be used as points of departure: (1) the process of the collectivization of the productive forces under capitalism leads objectively to the demand for the setting up not of group, but of national ownership; (2) national ownership requires a unified system of central national economic agencies; (3) so long as the external and internal factors determining the need for the retention of the socialist state remain operative, this state should carry out the functions of a national economic agency.

The revisionists allege that self-government on the basis of group ownership is a social mechanism by means of which the interests of the society and of the individual may be combined. National ownership, on the other hand, represents in their view the alienation from the immediate producers of the means of production. But the immediate producers can be joined even "more closely" to the means of production if means of production are allotted to each worker, i.e., if they are all made into capitalists!

Apropos, such an absurd conclusion was drawn by the American economists L. Kelso and M. Adler in their work *The Capitalist Manifesto*. These authors start from the premise that the contradictions of modern capitalism emanate not from private property, as Marx taught, but from its uneven concentration. They therefore propose a "capitalist revolution": The diffusion of property in such a manner that each member of the society becomes a capitalist. This, it is alleged, could be done, what with the availability of modern technical progress, by means of which it would be possible to create "a truly capitalist society with full democracy, and freedom of individual development." (37) The real combination of national and private, personal interests is to be found in Lenin's principle of democratic centralism, which evolves in the process of the growth of the forces of socialism and communism. The new stage of development in the USSR — the all-out building of communism — vividly confirms this.

M. P. Osadko, a Reader at Moscow State University, devoted his talk to criticism of revisionistic distortions of the nature of socialist public ownership. He emphasized that the revisionists oppose state ownership to public, social ownership under the proletarian dictatorship. In reality, however, these two ideas are identical in the sense that, during the first stage of communism, the society is able to ensure the functioning of the social means of production in accordance with an over-all plan and in the general interest of all members of the society only through a political apparatus, through the state.

Dwelling in detail on the opportunist theory of the

withering away of the state in the transitional period, Instructor V. N. Kirichenko (Moscow State University) described three basic revisionistic assertions on this point: the conception of social ownership of the means of production as group ownership by workers' collectives, metaphysical and eclectic ideas of the interrelationship between the economic structure and policy, in which policy is divested of its active role, and an idea of the spontaneity of economic laws under socialism.

The revisionists sever the relations of production from their material foundations — the productive forces — and at the same time they lump different categories together: the productive forces, the relations of production and policy. They deny an active role to policy and identify the objectivity of economic laws with the spontaneous form in which they operate.

Comrade Kirichenko further dwelt on the problem of the nature of economic and organizational functions of the socialist state. Present-day revisionists, he noted, represent it not as a function engendered by the needs of the base, but as a function generated by the interests of the "bureaucratic superstructure," by the mercenary interests of the "ruling bureaucratic elite." It is known, however, that Marxism-Leninism holds that the most important area of the economic-organizational function of the socialist state is production management.

L. Kadyshchev, a Reader at the Moscow Institute of Finance, noted in his talk that it is of special importance to struggle against the distortion by modern revisionists of the problem of correlation of state planning guidance to the national economy, spontaneous small-scale commodity forces, and tendencies of development in socialist countries.

L. M. Weinstein, a Reader at the Kharkov Institute of Soviet Trade, criticized distortions relating to the operation of the law of value in the socialist economic structure.

V. A. Zhamin, a Reader at Moscow State University, read a paper on "The Struggle with Revisionist Views on Questions of the Transformation of Socialist Agriculture," in which he emphasized that modern revisionists are opposing the most important point of Marxist-Leninist agrarian theory — the necessity for the collectivization of agriculture during the period of transition from capitalism to socialism. In several cases, they drag out the theories of "equilibrium," of the "stability" of the small peasant holding, which have long since been smashed by Marxists.

The revisionists also maintain that, under the people's government, small-scale farm production develops in accordance with the laws of expanding reproduction, and that its development is fully capable of supplying the growing needs of socialist industry. It is concluded from this that mass cooperativization is possible only in the distant future. This conclusion is contradicted by reality, because it fails to take into account that, under socialism, small-scale production enjoys limited possibilities of development.

V. A. Zhamin criticized the views of the revisionists on the problem of the pre-conditions of mass rural cooperativization. The question of forms of cooperation is a question of ways and rates of speed at which socialist ownership, socialist rural production relations and an abundance of agricultural products are to be brought about, and this determines the need to struggle against revisionism.

A. A. Evdokimov, a Reader at Kharkov Polytechnical Institute, also delivered his talk on problems relating to the struggle against revisionism on questions of the socialist transformation of agriculture. He pointed out that the revisionists advocate a theory of the coexistence of socialist and capitalist trends in rural development, a theory of

"family farms," a theory of the "possibility" of building socialism on two mutually exclusive bases — the socialist and the capitalist — and several other anti-Marxist theories.

I. V. Dudinsky, a Reader at Moscow State University, read a paper on "The World Socialist System and its Critics." He emphasized that the transition from capitalism to socialism is being effected today on a world scale and affects all other processes of any importance whatever that are taking place in present-day society. The world socialist system is a qualitatively new phenomenon in the history of mankind. However, modern revisionism denies the obvious fact of the existence of the world socialist system.

While developing their conception of a "unified world process" towards socialism, the revisionists assert that the presence of two world camps is not to be defined as a division between socialism and capitalism. The cleavage of the world into two opposing systems is reduced by them to a split between two antagonistic military-political blocs. Everybody knows, however, that the socialist camp is not a military-political bloc, but a friendly commonwealth of the countries of the socialist system, which is based not on temporary and limited objectives, but on a community of ultimate goals.

Master of Economic Sciences V. V. Nazarov (Moscow Engineering and Economics Institute) criticized revisionism on the problem of the character of the economic relations among the countries of the world socialist system.

One of the ways in which the revisionists are trying to compromise the commonwealth of nations of the socialist camp, is by the attempt to prove that the principle of peaceful coexistence also prevails in relations among the countries of socialism. This is a falsifying device because relations among socialist countries are based and built on the firm principles of proletarian internationalism.

Master of Historical Sciences T. T. Timofeyev (of the journal *Problems of Peace and Socialism*), in a report in "Criticism of the Theory of 'National Communism'," noted that one of the chief ways in which present-day revisionists are attacking Marxism-Leninism consists in attempts to undermine the principle of proletarian internationalism, one of the most important constituents of scientific communism. They oppose both the theoretical bases of proletarian internationalism and its practical and political implications. In its class nature, "national communism" is nothing else but a variant form of national-opportunism, of bourgeois nationalism as one of the manifestations of the influence of bourgeois ideology.

The basic theoretical premise of "national communism" is the rejection of paramountcy of the laws of social development and the emphasis of concrete, specific forms in which their operation is manifested.

A. M. Alexeyev, a Reader at the Scientific Economics Research Institute of Gosplan USSR, read a paper on "The Economic Contest Between the Two World Systems and the Bourgeois Falsifiers." He showed that both the friends and enemies of socialism all over the world are primarily and constantly concerned with problems of the contest between the two systems.

The fundamental question in this connection is the question of the rates of economic development of the USSR and of the countries of the bourgeois world. When answering this question, one group of bourgeois economists (McCloy and others) acknowledges that time is on the side of socialism and against capitalism. The representatives of this group call on the imperialistic states to accelerate their military preparations so as to turn back the wheel of history by force of arms, and thereby to strengthen capitalism. Another group of bourgeois economists states in the teeth

of the facts that it is not yet clear at the present time to which system — the capitalist or the socialist — belongs the future. Thus, the American professor G. Adams wrote in 1957 that "it cannot be said with certainty at the present stage in the development of world civilization whether time is working for socialism or for capitalism." (38) A third group of bourgeois economists, directly flouting reality, deny to socialism any right at all to compete with capitalism, seeing socialism as some sort of anomaly that is doomed to extinction. And finally, a fourth group of ideologues of imperialism declares that, in the economic contest of the two systems, capitalism will win. All these "theories" about the superiorities of capitalism over socialism are refuted by the achievements of the USSR and the other countries of the socialist camp in the peaceful rivalry between the two systems. These achievements are showing the entire world the great superiority of the socialist over the capitalist system and the inevitability of the victory of socialism in the peaceful economic contest with capitalism.

Participants in the discussions were Prof. B. Yu. Akhundov (Institute of Economics of the Academy of Sciences of the Azerbaidzhan SSR), Prof. S. Sh. Zurabian (Institute of Economics of the AS of the Armenian SSR), Master of Economic Sciences V. M. Krylov (Kuibyshev Planning Institute), Reader V. A. Pavlovich (Poltava Agricultural Institute), Reader D. I. Valentei (First Moscow State Pedagogical Institute of Foreign Languages), Master of Economic Sciences I. Kh. Kirtovsky (Institute of Economics of the AS of the Latvian SSR) and others.

A. M. Rumyantsev, A. A. Arzumanyan, N. A. Tsagolov, V. A. Zhamin, A. M. Alexeyev, A. I. Shneyerson and A. I. Vechin spoke at the concluding plenary session and concluding departmental sessions.

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N. Shabanova*

Money, Credit and Banks Under Socialism

Monetary Circulation and Credit in the USSR. Textbook. Gosfinizdat (State Financial Publishing House), 1957, 448 pp.

Several textbooks have been put out since the end of the war for the course on "Monetary Circulation and Credit in the USSR," each of them reflecting a certain level of advancement in the working out of the technical problems of Soviet money and credit. (1)

A textbook prepared by a team of writers at the Moscow Institute of Finances, headed by Z. V. Atlas, is set apart from previous publications by several distinctive features.

The first, which comes to notice at first acquaintance with the textbook under review, is the new arrangement of the course material. As we know, this course is divided into three parts: the first, theoretical, elucidates questions of the nature and function of Soviet money and credit; the second, historical, reviews the emergence and development of the USSR monetary and credit system; and the third part goes into the basics of the existing credit and monetary system and into methods and forms of utilizing these categories in the current stage of building communism. It is in precisely this manner that the course program put into effect by the USSR Ministry of Higher Education in 1956 solves the problem of material presentation. Practical teaching experience has, however, revealed shortcomings in such an arrangement of the course. The main flaw consists in that the course opens with the most difficult subject matter, in the explanation of which the instructor deals with concepts unfamiliar to his listeners. It consequently becomes necessary to skip ahead to give the students a superficial understanding of processes and categories which are more thoroughly dealt with in the latter parts of the course. The mastery of the basic theory of such complex categories as Soviet money and credit when they are presented at the outset of the course is all the more difficult since, at the time when they are beginning this specialized course, they have not yet had time to acquaint themselves with correlative material in the course on the political economy of socialism.

As adopted in the program, the material study sequence is also deficient because it requires, immediately after studying the nature and function of money and credit in the present-day socialist economy of the USSR, that the student switch over to an examination of monetary circulation and the credit system in pre-Revolutionary Russia prior to the Great October socialist revolution. Such a switch-over is not logically sound, besides which it forces the cleavage of the study of modern problems into two artificially isolated parts: theory at the beginning of the course, and organization at its end.

The authors of the textbook under review have rejected the presentation arrangement provided for by the program. They begin by examining the history of the development of the money and credit system of the USSR in the period of

transition from capitalism to socialism. This sequence directly ties in the first section of the course on "Monetary Circulation and Credit in the USSR" with the antecedent course on "Monetary Circulation and Credit in Capitalist Countries," which adheres to the sequence for the study of both subjects in economics VUZes [i.e., institutions of higher learning, equivalent to colleges in the U. S. —Transl.].

The authors of the textbook take up the theoretical problems of Soviet money and credit after discussing the process of the development of the monetary and credit systems of the USSR.

The textbook concludes with a section on the international credit and payments relations of the Soviet Union. Such a modification in sequence of subject matter presentation, in our view, will make for a better mastery of the material of the course.

It is also a distinctive feature of the textbook under review that, unlike the program, it analyzes the organization of the monetary system and planning for monetary circulation in the USSR first, and only thereafter is the subject of credit and banks taken up. This order of presentation was evidently an outcome of the desire to bring the account of the monetary system of the USSR into closer proximity with the theoretical chapter on the nature and functions of Soviet money. Such a re-shuffling of material would seem, at first glance, perfectly justifiable: after acquainting the student with the theory of Soviet money, it would seem logical to pass to a demonstration of the concrete mechanism of monetary circulation in the USSR and of its advantages over capitalism. While doing this, however, the authors lose sight of one important circumstance. Historically antecedent though money may have been to credit, the monetary and credit systems subsequently developed, however, in indissoluble unity. This is equally applicable to the capitalist economy and to socialism. The system for the issuance, standardization and circulation of money in the USSR is organically linked to the mechanism of banking credit and the account clearing system. The features of the monetary system can hence be mastered only after having studied the system of accounts and short-term credits, including problems of credit planning in the USSR. In this connection, a better solution has been given to the problem in the course program, according to which the clearing system should be examined first, then the organization and planning of credit, and only then, on the basis of the foregoing, the system of monetary circulation and its planning.

It is a characteristic of the new textbook that it presents relatively few concrete historical facts, but, at the same time, much more attention is given to the drawing of general conclusions from the practice of the development of Soviet money and credit as economic categories. The theoretical level of the book has thereby been raised. However, this merit turns at some points into its opposite. The desire to limit considerably the number of historical facts has resulted in that, in several places, the generalizations of the authors, correct in themselves, seem to hang, as it were, in air, and do not follow from the factual material presented.

The textbook under review is the first to include a section on the money and credit systems of the countries of socialism. This material fills a gap in the textbook

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erature for the course "Monetary Circulation and Credit."

Such are some of the general features of the textbook under review. Let us now look at its individual sections and chapters.

The first section gives an account of the revolutionary transformations undergone by the money and credit system in capitalist Russia. The authors quite rightly deal not only with the nationalization of the banks, but also with the measures taken by the Party and government to strengthen the monetary system of the country. Unfortunately, the section omits discussion of the establishment of the foreign trade monopoly, although this was one of the most important links in the chain of measures taken to create the Soviet money and credit system.

When discussing the state of monetary circulation during the war communism years, the writers of the textbook give a great deal of attention to the problems of the multiple paper currencies issued on Russian territory by various government agencies. It is difficult to agree with this. The historical fact cannot, of course, be denied that many paper currencies were circulating in Russia. But, firstly, the course deals with monetary circulation in Soviet Russia, and not in territories temporarily conquered by the enemy. Secondly, there was a central government in Soviet Russia which issued banknotes used as legal tender throughout the Soviet territory and in the struggle against the counter-revolution. The use of the printing press as one of the weapons (although a limited one) in the struggle to maintain and consolidate the young state was paramount in the monetary policy of the Soviet government during the war communism period, and it is this question that should have received special treatment.

Data are presented on page 33 on the real value of the revenue derived from the issuance of money by anti-Soviet governments" (2.5 to 3 billion rubles). These figures are probably obtained by the authors by extrapolation. They are questionable in our opinion, and hence should not have been included in the textbook without corresponding explicit reservations.

In their exposition of the credit reform, the writers propose to examine it as a process which lasted from 1930 through 1932 and passed through four chief stages: (1) the liquidation of commercial credit and its replacement by right bank credits; (2) the introduction of new clearing procedures and the strengthening of the role of the banks as an instrument for regulating the economy; (3) the establishment of principles of banking credit on the basis of the division of the circulating capital of enterprises into owned and borrowed; (4) completion of the revision of the credit system by reserving to Gosbank the functions of sole bank of competence for short-term credits for production distribution processes and the organization of banks for long-term capital construction investments.

Such a treatment of the credit reform and such a division into periods seem, in our view, correct; they should become firmly established in teaching practice.

Unfortunately, the authors have not given enough attention to the connection between the credit reform and the consolidation of industrial enterprises to a cost accounting basis. When discussing the allotment to economic organizations of their own circulating funds, which is organically linked with the solution of the problem of reinforcing the business autonomy afforded to enterprises by cost accounting and of increasing the accumulations of industry, nothing is said of the reinforcing of business autonomy.

In the second section of the textbook, its authors rightly regard Soviet money as one of the forms of money in the

socialist world economic system. It is worth noting that our literature for a long time did not make a distinction between Soviet money and the moneys of the socialist economy. The course program and textbooks published earlier in accordance with it treat this question in the following way: Soviet money has four functions (as a measure of value, a medium of circulation, payment and accumulation). On the world socialist market, Soviet money acts as an international unit of account, which, however, is not one of its functions.

The textbook under review correctly states: "Under socialism, money discharges five functions: as a measure of value, a medium of circulation, a medium of payment, a vehicle of accumulation and as international money, the fifth function being performed directly by gold in bullion form" (page 143).

The authors have attempted to limit the functions of Soviet money as a medium of circulation and payment. Adequate clarity is also lacking on this point. As a result, for example, payments by supply organizations for goods and services, effected through a bank, have frequently been related now to this, now to another function of money. The new textbook relates the round of payments among supply organizations to money as a medium of payment which, in our view, is quite correct, although the underlying reasoning for this choice is not made quite clear. "... Because it (i.e., money — N. Sh.) constitutes a medium for settling the reciprocal financial (payment) obligations that arise out of the realization of material values and the rendering of services by one enterprise to another" (p. 148). It would be more correct to have said: because the settling of payments is accomplished by means of account clearing procedures and on the basis of the bank's credit operations, the flow of money diverging for a time from the flow of material values.

This section contains inaccuracies and wrong statements. On pages 149-150, for example, it is stated that: "... And, under socialism, the function of money as a medium of payment entails the possibility of a rift between the flow of money and the flow of goods." But such a rift is, on the whole, characteristic of this function of money (otherwise it would coincide with the circulatory function). Evidently, what the textbook should have been talking about was the illegal withholding of payments beyond established due dates. It is asserted on pages 155-156 that "the Soviet ruble represents gold only (our underlining — N. Sh.) in the domestic economic turnover of the USSR..." This is incorrect. The Soviet ruble also represents gold on foreign markets because otherwise it could not serve as a monetary unit for clearing accounts, with a fixed weighted gold content, as is stated on page 157.

In describing the monetary system of the USSR, the authors define it as an organization for the planning of monetary circulation and regulated by nation-wide laws. This definition is not objectionable in itself, but the context in which it is presented should be made more specific. What the authors have done is first to divide all monetary flow into clearing and cash transactions, and then to limit their discussion in the chapter concerned to the circulation of currency (the reader interested in clearing transactions is referred by the authors to one of the last chapters). This gives rise to the impression that clearing transactions lie without the purview of our monetary system, which is contrary to reality.

The book is not quite accurate in its discussion of the correspondence of the quantity of money in circulation to the actual requirements of circulation. The authors tie this problem in with only two of the functions of money: as a

medium of circulation and as a medium of payment. As a matter of fact, however, part of the aggregate money supply in circulation is money which has been used as a medium of accumulation.

The third section is one of the largest in the book. It covers the theory, history and organization of the present-day system of short-term credit and account clearing in the socialist economy of the USSR. Unfortunately, there is no methodological justification for the inclusion in this section of chapter eight, which describes the milestones in the development of the system of short-term credit and clearing accounts after the credit reform was carried out. When outlining the development of credit and account clearing relations, recourse must inevitably be had to a whole series of specialized and complex concepts (the decentralization of clearing procedures, for example), the central content and concrete manifestations of which are explained only later on in the examination of the existing system of short-term credit and clearing procedures. Teaching experience leaves no doubt but that the student who is unfamiliar with the present-day mechanism of short-term credits and account clearings will find it difficult to master the complex process of its development. In our view, therefore, the development of credit and clearing transactions should not be presented before the students have familiarized themselves with the forms and procedures for the conducting of credit and account-clearing operations, as is done in the textbook under review. Nor is it advisable to place the chapter on the development of credit and debt settlement relations right after the description of the present-day operations of the State Bank, since, after having studied the existing debt settlement system, there is no justification for a return to the very same material in its historical aspect. It would hence have been more correct, if the chapter on the development of the credit and clearing system, as presented in the work, had been omitted from the book altogether. The material it presents is interesting and useful, but is essentially more suitable as the subject of a monograph than for inclusion in a textbook. The essential minimum of facts on the development of credit and monetary relations could be given either in the concluding paragraph of the chapter on the credit reform or in the discussion of the present-day system of short-term credit and account clearing.

The examination by the authors of the nature and functions of credit and the banks under socialism is of unquestionable interest. They have made an attempt to isolate the functions and role of credit in the socialist economy from the functions and role of banks (pages 236-238). The book introduces the concept of the "state loan fund" as the aggregate of temporarily uncommitted monetary means and reserves, special purpose funds, and also the owned means of banks and notes in circulation, which, under socialism, are mobilized and put to use on a loan basis exclusively by the state to fill the needs of the national economy (page 230). It is also worth noting that the book clearly and accurately justifies the necessity for credit under socialism. The authors do this by starting from the presence of commodity production and of the circulation of the money of enterprises operated on a cost accounting basis, on which circulation two methods for the redistribution of money in the socialist economy, the budgetary and credit methods, are based.

The authors have made a few assertions, however, which cannot be conceded. This is true most of all in regard to the functions of credit. To begin with, they should have discussed the functions not only of banking credit, but also of credit in general. This would have made the subject more comprehensive. Secondly, it is inadmissible to formulate the function of banking credit as a function of "the

redistribution of money" (page 236). Two processes, or two diverse economic phenomena, are artificially joined together here: the accumulation of money, or the concentration in banks of temporarily uncommitted funds, and the diffusion of bank resources as loans, or the making available by banks of additional funds for the economic activity of financially autonomous enterprises.

In his analysis of the functions of money in the capitalist economy, Marx distinguished them as the simplest (later even as inseparable) manifestations of the nature of money. Following this, we should find the general and most elementary manifestations of credit relations in the socialist economy of the USSR. These, in our view, are, firstly, the enlistment of temporarily uncommitted funds, secondly, the handing out of money on loan and, thirdly, the economizing of full-value money by creating credit instruments of circulation or replacing cash by clearing accounts.

The authors go into unnecessary detail in their description of existing financing procedures. At the same time, they do not give due attention to the economic analysis of phenomena and in many ways duplicate the material of the course on "The Organization of Credit and Debt Clearing" which is read in the credit departments of finance faculties after the course on "Monetary Circulation and Credit in the USSR." In the account of credit procedures, the fundamentals should have been carefully gleaned, omitting the myriad details of bank operations (for example, diminishing and intra-quarterly limits and drafts for them, the extension of a loan on paid or unpaid material values, the handling of a credit for sovkhos overhead, etc.).

Among the basic principles of short-term credit the authors include: reimbursability within a specific time (expiration time), the extension of credit for specific purposes, the credit standing of the borrower and the granting of credit appropriate for the actual fulfillment of the plan (page 299). But the reimbursability of a credit is not a credit principle, because there can be no credit without reimbursability. Herein lies the distinction between credit and financing. Expiration time is another matter since, being a manifestation of reimbursability, expiration time is truly fundamental to the present-day credit mechanism.

It is not right, in our view, not to have mentioned among the principles of banking credit the planned nature of credit, although precisely this is one of the qualitative differences between Soviet credit and credit in the capitalist economy. Besides, the differentiated approach to well and badly operating enterprises should also be included among the basic principles of banking credit practice.

The space allocated by the authors to short-term credit and to the system of financing and long-term credit for investments in capital construction is obviously not commensurate (only 28 pages) with the complexity and great importance for the training of specialists of the financial questions included in this subject. On the other hand, 64 pages are given over to the description of the short-term credit system, not counting the separate chapter of special material on clearing accounts. Such a disposition obviously does not reflect the place and importance of each of these systems in the national economy of the USSR.

It is a virtue of the textbook under review that it devotes a separate chapter to clearing and credit relations in the countries of the socialist camp. This is a first, but a very important step towards filling a gap in the curricula of our VUZes. But, considering that the area of Soviet foreign trade relations is the least familiar to students, and that these questions are not taken up at all in other courses, it would have been desirable to have given a more extensive account of the peculiarities of the organization of the

foreign trade of the USSR and to have provided at least a condensed description of insurance, shipping and other specific operations mentioned in the balance of payments. As a whole, the textbook on monetary circulation and credit in the USSR, prepared by a team of writers of the Moscow Institute of Finance, is to be evaluated favorably, though it is not free of certain defects.

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Khavina:

Falsification of the Marxist Theory of National Income

Jean Ives Calvez, *Revenu National en USSR. Problemes theoriques et description statistique*. Paris, 1956, 267 pp.

Jean Ives Calvez, *National Income in the USSR. Theoretical Problems and Statistical Description*. Paris, 1956, 267 pp.

The monograph *National Income in the USSR* is from the pen of the French bourgeois economist and sociologist J. I. Calvez. Its author is one of the crop of social scientists that has emerged since World War II. Over the last few years he has published several works on economics, philosophy and law, dealing with problems of Marxist theory and of Soviet economics from the mendacious bourgeois standpoint. The most well-known of these, and the one which most fully renders the socio-economic outlook of the author, is the book *The Ideas of Karl Marx*. (1) In this work Calvez emerges as a typical practitioner of the Catholic species of falsification of Marxism prevalent in France. The Jesuit fathers of Calvez's type, who in the past even praise Marxism, are attempting to undermine it within the growing influence of the revolutionary overthrowing of Marxism on the broad masses of French workers, including Catholics, too, by emasculating Marxist theory of its materialism and dialectic. Catholic social scientists are thereby closing ranks with reformism and revisionism, translating, in the expression of R. Garodi, member of the Central Committee of the French CP, the basic positions of revisionism into the language of the church. Calvez's "treatise" on Marxist theory is falsified from the very outset by the fact that it is based on Marx's early work, which has come down to us in the form of an incomplete economic-philosophic manuscript (1844). From this manuscript Calvez borrows the abstract and vague term "alienation," which Marx discarded in his subsequent works. Calvez reduces Marx's economic teaching, as set forth in *Capital*, to a peculiar philosophy of "economic alienation." Calvez goes to great lengths in his attempt to equate the materialistic dialectic of Marx and the idealistic dialectic of Hegel. Calvez writes: "... Just as (Marx's) theory of value is a further development of Hegel's *Logic*, so the theory of capitalism and its downfall is a further development of his *nomenclology*..." (2)

By thus representing Marx's theory of value and capital as a metaphysical extension of Hegel's teaching, Calvez attempts to pervert the revolutionary essence of Marxism.

J. I. Calvez's work *National Income in the USSR* has not been subjected to any appraisal in our economic literature to date. As pointed out by its author, the aim of the monograph is to promote the development of the comparative study of Soviet and Western economic thought and to acquaint the reader with the body of magnitudes that characterize the structure and evolution of Soviet economics. The monograph has two parts: theoretical and concrete-descriptive. In the first part, Calvez examines the theoretical position of Marx on national income and sets forth the national income theory worked out by Soviet economists. In the second part he analyzes statistical data on the dynamics of national income and its distribution. The work devotes many pages to the part played by the state budget in the distribution and re-distribution of national income in the USSR.

In the concluding part of the monograph, Calvez considers the outlook for an acceleration of the rate of growth of national income in the USSR, the correlation between the fund of accumulation and the fund of consumption under socialism, and the economic functions of the socialist state.

The huge successes of the Soviet Union are so obvious that Calvez is constrained to acknowledge both the successes of the Soviet economy and the achievements of Soviet economic science. He writes: "... In no single country is the study of national income of such great importance as in a planned economy country" (p. 8).

Calvez remarks that, in the USSR, every scientific advance at once takes on a practical character. Appraising the condition of Soviet economic science, he writes that, whereas economists in the West have only just resumed the study of national income after a long interval, "Soviet economists have been strictly upholding the tradition of national income research that goes back to the Physiocrats" (p. 23). He also acknowledges that the predominance in the West of subjective, individualistic methods and of scientific positivism, the striving to apply mathematical procedures to economic analysis, led, after the end of the 19th century, to the circumstance that, instead of studying "societies, nations, synthetic magnitudes, reflecting first and foremost the relations existing between groups and classes instead of among individuals, (economists) undertook the investigation of elementary economic phenomena, of the 'atoms' that make up the economic process" (p. 16). It was only in the twenties and thirties of this century that aggregate indices began once more to engage the attention of economic science in the West.

Calvez emphasizes that bourgeois economists should calculate the national income of the USSR from the data of Soviet statistics and the output distribution and labor productivity accepted by Soviet economic theory. He writes that "the study of the quantitative structure of Soviet national income must not be separated from the most important notions on which its computation is based" (p. 10). It should be noted that, unlike many bourgeois economists, Calvez rejects the possibility of determining the size of national income in the USSR by "re-evaluating," after the manner of many bourgeois economists, the data of Soviet statistics on the basis of theories and methods applied in the West. He states that, "since the limits and character of the productive sector are understood differently in Soviet and Western political economy, national income computations based on methods applied in the West may give an incorrect idea of the Soviet economic structure" (p. 10).

On questions of the theory and methodology of the

determination of national income Calvez expounds bourgeois views, diametrically opposed to Marxism. Posing as an "objective" investigator of Marxism, he is furious in his defense of the theoretical positions of present-day vulgar bourgeois political economy.

For Calvez, the "scientific peak" in the development of national income theory is the "analysis of the interaction among branches of the economy" made by Prof. V. Leontief, of Harvard University. He writes that "the study of the 'interaction among branches of the economy' and the working out of matrices expressing the interrelationships operative in a national economy are leading to ever deeper penetration by economists into the mechanism of the creation and distribution of national income" (p. 20). However, he is all the same compelled to admit that neither the working out by the economists of the West of theoretical and empirical models of a national economic balance, nor Leontief's analysis of inter-branch processes has been able to solve the problem of determining the limits of the productive sphere.

With other bourgeois economists, Calvez advances, as the most accurate definition of national income, the definition formulated by the American economist Fischer and the German economist Bischoff, who include in the concept of national income "the entire mass of services, rendered by means of goods created anew during a given period" (p. 28).

It is quite natural that Calvez "did not notice" the basic flaw in this definition, which is based on an anti-historical and non-class approach to the economic reality of bourgeois society. Fischer and Bischoff regard these "services" as consisting both of the "services" of labor and of the "services" of capital. Such an interpretation of "services" is quite admissible for Calvez, as, for that matter, for any other bourgeois economist, because it lends support to the apologetical justification of the unearned income of the exploiter classes.

Calvez also brings subjective, idealistic views to bear in his examination of problems of value and price. He makes no distinction between value and price, defining the costs of production as price, and price as the costs of production. At the same time, price and, consequently, production costs as well, are regarded by him not as objective economic categories expressing the social production relations that exist at a specific stage in the development of the society independently of the will of its members, but as a category determined by the "will of the people," by their "decisions."

Calvez holds that outlays of concrete labor may be termed the "technical," or "necessary" costs of production, representing a "natural necessity to which the producer must inevitably bow." Need it be said that this is the crudest falsification of Marx's teaching? As we know, for Marx, both concrete and abstract labor embodied in a commodity express social, not technical production relations.

Marxist-Leninist political economy studies concrete labor as an economic category. For Calvez, on the other hand, technical production expenditures, to which he attaches the label of "concrete labor expenditures," are outside the sphere of economic relations. "The product," he writes, "is defined only technically here; we are beyond the realm of economics" (p. 32).

After denying that cost is the objective basis of price, Calvez goes on to deny the objective laws of political economy. He transforms political economy into a science "in which people, their choices and calculations, operate," a science "of the selection of the best decisions." In this connection, he gives a distorted interpretation of the nature of socialist planning. While holding that socialist planning may represent a theoretically higher form of relationship

than the market, Calvez states at the same time that planning "does not essentially alter the structure of economic science as a 'science of choice.' It is only one of the technical methods of expressing the pressure of individuals and groups determining this choice and different from free enterprise methods inherent in capitalism or the monopolistic system" (p. 34).

By recognizing market price as the "only regular economic category," Calvez wholeheartedly attaches himself to such reactionary Anglo-American bourgeois economists as Hayek and Mises, who maintain that there can be no economic science where a "free market economy" is not present.

Calvez also applies this faulty method to the determination of the limits of the productive sphere, where the aggregate social product is created. He maintains that "every purchase and sale of goods and services that takes place in the interval between the two end points in the economic process (production and consumption are meant — S. Kh.) contributes to the satisfaction of demand and to consumption" (p. 37).

The author of the monograph concludes from this that every good or service that has a market price should be included in the aggregate national product, especially state and domestic services.

Calvez understands the price of "state services" as the outlays made under the state budget, and he regards parliamentary debate and ratification of these outlays as the "market" for such "services." He writes that, although services rendered by the state "are not subject to purchase by private persons, they are nevertheless subject to aggregate approval, which is granted by representatives on behalf of all the individuals together. This is the sense of parliamentary debate and of every other kind of discussion that arises during the drafting of the State budget. The parliament acts as a true market of economic importance ..." (p. 38). This is the amazing "theoretical" conclusion to which Calvez is led by a spurious methodology based on the principle of exchange relations which conceals the non-productive functions of the bourgeois state and of the numerous parasitic menials that cater to the ruling classes.

While defending views hostile to Marxism, Calvez tries to camouflage them. He sets forth Marx's national income theory in detail: his monograph is flooded with numerous quotations from Marx's works, willfully interpreted by him from the standpoint of modern vulgar bourgeois political economy. This is especially true for the problem of productive and non-productive labor.

As we know, one of the cardinal principles of Marxist-Leninist political economy consists in the decisive role of the sphere of production with respect to the sphere of circulation. Calvez, on the other hand, attributes to Marx the understanding of "the economic structure as based on exchange and on exchange value." He writes that the definition of productive labor to which Soviet economists adhere "is not justified from the point of view of the correct definition of economic structure accepted by Marx, as well as by other economists; it is precisely the economic structure which is based on exchange and on exchange value, and not on necessary production costs, on natural necessity" (p. 147).

The author also interprets fallaciously the universal sociological criterion of productive labor. He writes: "If this theory (the definition of labor productivity from the criterion of the production of surplus value. S. Kh.), according to Marx, applies to capitalist society, then it must also operate in non-capitalist society... This conclusion is correct from the standpoint of the universal sociological

riterion of surplus value. Whatever the forms taken by surplus value in the socialist society (which, by the way, are not specified by Marx), this criterion alone is sufficient for the definition of national product (or national income)" (p. 82).

As we see, Calvez is here, too, falsifying Marx and the Marxist theory of national income. In Marxist political economy, not the production of surplus value, but the purposeful modification of matter and influence over nature by human labor so as to transform them into goods for the satisfaction of human needs, is the universal sociological criterion of productive labor regardless of its historically determined form (of the so-called productivity of labor in general). Marx wrote in *Capital* that "if we examine the entire labor process (i.e., labor as purposeful activity aimed at adapting nature to human needs — S. Kh.) from the standpoint of its result — the product — it is then seen that both the means of labor and the object on which the labor is being performed are means of production, and that the labor itself is productive labor." (3)

One function of productive labor is material production, the process of which the material foundation is laid for the existence of the non-productive sphere. "... It is clear that the labor of the physician and the teacher does not directly give rise to the fund from which they are paid..."

Calvez confuses the creation of material wealth as the criterion of productive labor with the production of a product in its material form. He accuses Soviet economists of predilection for the criterion of the materiality of the product when defining labor productivity and, he says, of neglecting the second datum of Marx's criterion — the production of surplus value. As Calvez writes: "... Soviet economists lay greater stress than Marx on the material character of production. The criterion of the materiality of the product (the narrower of Marx's two criteria) has completely replaced the sociological criterion (which is narrow enough in itself, since he evidently did not include labor of independent artisans and peasants)" (p. 91). Like A. Smith, Calvez links the materiality of production with the material form of the product of labor.

Marx, however, had criticized A. Smith precisely for his identification of the materialization of labor with the "correal" reality of the commodity. Marx showed that material production is not limited to the production of products in material form, but also includes such branches (transportation and communications, for example) which, while they act on nature, do not engender products of labor that stand in isolation from the labor process.

The identification of the materialization of labor with the material character of its result narrows down the sphere of material production on the one hand and, on the other, leads to an effacing of the boundaries between the spheres of material and "spiritual" production, insofar as the result of the latter is a material product.

In his *Theories of Surplus Value*, Marx repeatedly emphasized that the production of surplus value serves as a criterion of the productivity of labor only from the point of view of capitalist production, of capital, in the capitalistic sense.

Consequently, not only does the capitalistic form of productive labor not extend its boundaries but it even contradicts them, since, from the point of view of capital, not labor in the sphere of material production is productive; only that labor is productive which engenders surplus value. When examining labor expended in the sphere of non-material production, Marx writes that "productive and non-productive labor are always distinguished here by the

owner of money, the capitalist, but not by the worker..."

(5) Such labor creates surplus value for the capitalist in the sense that it yields him profits, thereby assuring him of a share in the aggregate surplus value receipts. As it does not act on the forces of nature or adapt them to human needs, labor in the form of services, performed either in the sphere of "spiritual" production or in the sphere of consumption, does not generate the aggregate national product and national income.

Calvez, however, attempts in his falsification of Marx theoretically to justify the necessity for the inclusion of non-material services in the aggregate national product and national income.

He extends to socialist society a criterion of the production of surplus value which is, in Marx's words, a differentia specifica of productive labor under capitalism.

True, Calvez recognizes that, under socialism, the surplus product (surplus value, in his expression) comes forth in new forms. However, this stipulation does not alter the situation. The author perpetuates the production of surplus value as a universal sign of productive labor for both capitalism and socialism.

The nature of the socialist society precludes the presence of surplus value, and the production of surplus product is not its aim, so that, consequently, it cannot serve as a determinant of productive labor.

It is characteristic of Catholic falsifiers of Marxism to attempt to reject the fundamental opposition between the economic categories of capitalism and those of socialism. Calvez remains silent on the subject of the qualitative distinctions between the USSR and capitalist countries in the utilization of national income for accumulation and consumption. He skirts around the question of the fundamental differences between the socialist and the capitalist societies, of the antagonism between consumption and accumulation under capitalism and the liquidation of this antagonism under socialism, and of the high standard of accumulation inherent in the socialist society and unattainable by capitalism.

Noting the important part played by the socialist state in the economic growth of the USSR and the close interconnection between the economic and political spheres under socialism, Calvez asserts, however, the bourgeois states have also entered upon a period of similar changes. He writes: "... What has happened in the USSR may be taken as an indication of what is going on in all modern states. It (the USSR — S. Kh.) has merely outstripped many other countries in this evolution" (pp. 242-243).

Ignoring the fact that only where the means of production are publicly owned can the state, on the basis of known economic laws, play a guiding role in the development of the national economy, Calvez passes over in silence the fundamental distinction and superiority of the socialist economic system over the capitalist system.

Working with the date of the bourgeois economists Jasny, Bergson, Rosen and others, who have distorted the true picture of national economic development in the USSR, Calvez underestimates considerably the rate of growth of national income in the USSR. Crudely distorting reality, he concludes incorrectly that the national income of the USSR is growing at an average yearly rate of 6.5-7 per cent. Calvez asserts that this is the maximum possible rate and can hardly be kept up.

Life has refuted these prophecies of the Catholic writer, who poses as an impartial student of Marxism.

As Comrade N. S. Khrushchev showed in his report to the XXIst Party Congress, the national income of the USSR will

(Continued on Page 100)

NOTES AND CORRESPONDENCE

L. Bulochnikova and V. Korochkin:

On Cost Autonomy in Kolkhozes

The XXI Congress of the CPSU has adopted a majestic program for the full-scale construction of Communist society. Huge tasks have fallen to socialist agriculture. During the forthcoming seven-year period, the volume of gross agricultural production will increase 1.7 times. This growth will be achieved through a considerable intensification of labor productivity and reduction of production costs. If the expenditure of labor and money per unit product is to be reduced, enterprises will have to be run prudently, all capabilities and reserves of production will have to be exploited as wisely as possible and strict economies will have to be observed. In this regard, a most important lever is the application of cost accounting management on kolkhozes.

Now that the kolkhozes have been granted broad powers of initiative in the organization and planning of their production, they will not be able to conduct their operations economically and to be successful in them unless they know the cost per unit of agricultural produce. It has been possible, through the reorganization of the MTSes and the open sale of their equipment to kolkhozes, to establish direct economic ties between socialist industry and kolkhoz production, which has resulted in a consolidation of commodity relations between industry and agriculture, an increased commodity exchange between them and an expansion of the sphere of operation of the law of value in kolkhoz production. The elimination of the many ways of purchasing kolkhoz produce and the various prices at which it is sold has also considerably facilitated the economic activity of kolkhozes on the basis of cost management.

Cost management takes on certain specific features on kolkhozes due to the presence of the work-day, a unique method for produce distribution, the payment for part of the means of production with produce, and a great gap between production time and the working period. At the same time, exactly the same cost accounting principles apply on kolkhozes that are operative at industrial enterprises. Planned management, the observation of a regime of economy, the replacement of disbursed funds from income and operation at a profit, the material stake of the enterprise and of each worker in the fulfillment and overfulfillment of the plan, the independent solution of administrative and operational problems, ruble control of the activities of the enterprise — all this is fully applicable to kolkhoz production.

The purpose of cost management on kolkhozes is to fulfill the state plan while at the same time ensuring the profitability of both the socialized sector as a whole and its individual branches. As cost management enterprises, kolkhozes have every chance of acquiring a fund of accumulation, which is necessary for the further expansion of the socialized sector.

One of the basic questions in the application of cost accounting is the determination of production costs, which on kolkhozes exhibit certain features not observable on state enterprises. In the process of production, part of the means of production is reproduced and consumed as is; no fund of amortization is built up in kolkhoz production; nor

are there any wage categories on kolkhozes. The remuneration of labor through the distribution of produce and money on the basis of workdays requires the application of monetary values to payments in kind. Besides, the reckoning system is inadequately suited to the determination of costs by individual farming departments and crops. However, none of these considerations are insurmountable obstacles to the computation of the cost of kolkhoz production.

The most important question is the evaluation of the workday. In our view, disbursements for kolkhoznik wages should be determined in accordance with actual payments per workday in money and in kind. Only through such a reckoning can a correct idea be obtained of the real production costs and of the profitability of production. Without these data intra-kolkhoz cost management cannot be introduced and the comparative profitability of the different departments cannot be studied. Certain economists propose the determination of wage expenditures in accordance with a conventional, standardized evaluation of the workday based on the average wage level for sovkhos workers. In our view, conventional standards should not be used in artel management based on cost accounting. They may only be applied for the comparison of production cost figures of kolkhozes in the raion or oblast, for planning purposes, and also when cost data are needed for determining the level of state prices for kolkhoz produce. True, production costs should also be planned on kolkhozes for cost accounting purposes in accordance with standards of labor and money inputs and projected prices.

As all cost management enterprises, the kolkhoz needs an amortization fund for the financing of capital repairs when required and the replacement of obsolete by new equipment, and for disbursements to tractor repair stations for capital repairs. This fund is also to be used for the accumulation of money for the full replenishment of basic production funds.

By setting up a fund for amortization, the kolkhoz will be able to determine more accurately the production costs of kolkhoz produce. Amortization norms in use on sovkhos are currently being employed in the computation of costs on kolkhozes. There is, in fact, no essential difference between the production processes on each of these two types of farms within the same or similar zones. The norms current on sovkhos for the amortization of machine-tractor stock could be applied on kolkhozes. However, the accurate, real value of kolkhoz buildings and structures cannot be determined by assessment methods, which gives rise to the necessity for their re-evaluation.

Today, the size of the income received during the year is one of the basic indicators of the economic activity of the kolkhoz. In reality, however, monetary income, being the gross receipts, does not express the ultimate results of kolkhoz operations. In addition to the artel's net income, it contains in itself part of the value of expended means of production, and also part of the outlays for kolkhoznik wages. The effectiveness of operations in the communal sector as a whole and in its individual departments cannot be judged from the size of the monetary income. Thus, the annual report for the year 1957 of the Stalin kolkhoz, Shatsk raion, Ryazan oblast, shows that the kolkhoz realized a monetary income of 24,646 rubles from the sale of wool.

turned out in reality that this "income" had not allowed for expenses in the production of the wool; the loss amounted to 14,409 rubles.

The introduction of effective cost management on kolхозes requires that the final results of production activities be determined in terms of the net income of the kolhoz. In doing so, in our view, net income may be regarded for the sake of simplicity as the difference between the total receipts from the sale of produced commodities and their production cost, i.e., to compute the net income

realized exclusively in money, even though this sum will be less than the total net income, since part of it goes as produce to accumulation and other communal funds of the kolkhov. On many kolkhovs net income is computed in just this way, because it is thereby possible to determine, within a certain margin of error, the degree of profitability of the production of basic farm products. At the Stalin kolkhov, the net income for 1957 was 4,015,316 rubles, and the net income of each department was as follows (in rubles):

	Prime Cost of sold produce	Receipts from sale of produce	Results (net income +, loss -)
Cereals	204,258	289,357	+ 85,099
Hemp	481,481	2,403,539	+ 1,922,058
Fruits and berries	415,171	1,818,412	+ 1,403,241
Vegetables	35,035	55,837	+ 20,802
Sugar beets	177,247	265,438	+ 88,191
Potatoes	118,395	352,849	+ 234,454
Dairy products farm	865,900	1,079,741	+ 213,841
Pig-breeding farm	390,940	438,190	+ 47,250
Sheep farm	88,497	50,233	- 38,264
Poultry farm	51,901	23,053	- 28,848
Apiaries	56,494	82,250	+ 25,756
Other livestock farms	56,796	29,009	- 27,787
Other monetary incomes	—	69,523	+ 69,523
TOTALS	2,942,115	6,957,431	+ 4,015,316

The conversion of kolkhovs to guaranteed workday wages offers even wider possibilities for the accurate computation of kolkhov net income. The guaranteed wage is compensation for necessary labor input and is included in the costs of production. This is what they have been doing for several years at the Stalin kolkhov. At this kolkhov a guaranteed pay of 8 rubles in money and produce has been per workday. (The products are priced at their actual prime cost so as to give the kolkhovniks a stake in the reduction of unit costs.)

If cost management is to be successfully introduced on advanced kolkhovs, they should be converted to the guaranteed monetary wage, without counting up workdays worked. Payment in money liquidates the elements of natural economy on the artel and makes possible the keeping of complete records and control by the ruble of production costs. The production-financial plan is a basic document for the organization of cost management. Let us investigate the results of its application at the Stalin kolkhov.

The kolkhov's yearly production-financial plan is worked out on the basis of the long-range plan. Side by side with the production schedule and the system of measures for its execution, this plan determines the figures on prime cost of production, profitability, and also shows the distribution of income between the funds of accumulation and consumption.

Cost management was introduced at the Stalin kolkhov by means of the kolkhov production-financial plan form approved by the RSFSR Ministry of Agriculture on September 1, 1957. But this form contained fundamental defects: it provided only for the drafting of a combined plan of expenditures of workdays and products produced locally in kind (seed, fodder) and of money in the production of one hundred kilograms (1 centner) of produce, but not for the

computation of the prime costs of production.

The computation of production costs in terms of these three figures does not allow the comparison of inputs to and results of production and, therefore, does not contribute to the introduction of cost management on kolkhovs. In this connection, the Stalin kolkhov supplemented the production-financial plan with the calculation of the planned prime cost of all forms of produce. The computation of the cost of certain livestock products for 1958 is shown at the top of page 84.

Internal cost accounting methods can only be utilized correctly with consistent adherence to the principle of the material stake of the kolkhovniks in the results of their productive activities. If kolkhovnik wages are not made directly dependent on the ultimate results of their labor, it will not be possible to cut down on costs. In 1957, two Stalin kolkhov brigades required the following (shown in table at the top of page 84) number of workdays to plant 1 hectare and produce 1 centner of potatoes.

With an almost identical job to do under the plan, the sixth brigade required almost half the number of workdays than the fifth to pick almost twice as many potatoes from each hectare. It took the sixth brigade almost one fourth the number of workdays than the fifth to produce 1 centner of potatoes. Each centner of potatoes picked on the fields of the sixth brigade cost the kolkhov only 6 rubles in labor, as compared with 20-odd rubles per centner of potatoes from the fields of the fifth brigade. But the latter turned out to be better off since workday credits were all paid at the same rate for all brigades. The members of the fifth brigade received, for 2,446 workday credits, a total of over 30 thousand rubles in produce and money, while the sixth brigade received almost half as much for 1,366 workday credits, although the kolkhov received from its fields

	Area Planted (In ha.)	Workdays Required	Total Yield (in cent- ners)	Yield (in centners from 1 ha.)	Workdays for 1 ha. of planting	Workdays for 1 cent- ner of produce
Fifth fodder brigade	31	2,446	1,592	51	80	1.54
Sixth fodder brigade	33	1,366	3,168	96	41	0.43

almost twice as many potatoes.

The accomplishment of economies in management requires the institution of a wage system that would be tightly bound to the results of brigade performance volume and product quality, as well as to its cost. Apart from this, the cost management plan of the brigade should provide for the pecuniary encouragement of the kolkhozniks to overfulfill assigned quotas.

On the Stalin kolkhoz, when paying out the wages of the kolkhozniks engaged in hemp and sugar-beet growing, the first thing that is taken into account is the monetary income

earned from the sale of the output of each individual brigade. Hence, not only the quantity of output produced, but also its quality, is considered. Different rates are applied for the workday pay of the members of brigades depending on the quantitative results of their operations. Thus in 1957, for each workday accrued in hemp-growing, the members of the first brigade were paid at the rate of 9 rubles, the second at the rate of 12, the third at the rate of 10, the fourth at 10, the fifth at 10 and the eighth at 8 rubles 50 kopeks per workday.

	Dairy Herd	Beef (Calves)	Pigs (Fattened for slaughter)
Basic production output	1,049 thous. liters milk	1,354 centners (live weight)	937 centners (live weight)
Concomitant production output	310 head of calves	—	—
Workday inputs (in units)	32,094	21,907	12,400
Inputs in terms of money	762,682	613,469	437,205
Of which:			
for workday compensation	256,752	175,256	99,200
for fodder and litters	283,024	330,323	272,026
for purchased materials and other disbursements	49,900	19,200	8,100
for auxiliary production	73,537	19,208	18,344
for amortization of basic means of production	27,259	20,078	11,635
for general farm expenses	45,893	31,440	17,732
for general kolkhoz expenses	26,317	17,964	10,168
Cost of manure	6,570	6,374	3,320
Total expenditures (less cost of manure)	756,112	607,095	433,885
Prime cost of production:			
Basic	734,412	607,095	433,885
Concomitant	21,700	—	—
Prime cost of 1 centner of basic produce	70	448.37	463
Prime cost per unit of concomitant product (of one calf)	70	—	—

In 1958 all the production brigades of the kolkhoz went over to internal cost management. Each brigade was given a cost job based on the indices of brigade production costs. Maximum workday allowances were provided on the planned volume of all forms of brigade production for workdays, horse-drawn labor time, kilometer-tons, tractor work in hectares of soft tillage, seed, fertilizer, general brigade expenses and other outlays. Additional expenses are also expressed in terms of money. Horse-drawn labor time, kilometer-tons and hectares of soft tillage are determined in accordance with planned costs established for the draft-horse farm, motor-pool and tractor brigade.

The brigade which, in the fulfillment of its gross

production plan, achieves a reduction of expenditures to below the allowed limit, should be awarded part of the amount so economized for distribution among its members in accordance with accrued workday credits. At the same time, the brigades assume full responsibility for working more than the workday limit.

On the Stalin kolkhoz, auxiliary operations (motor transport, the hydroelectric station, the mill, the pump station, the smithy, the carpentry shop, etc.) are also given cost management assignments. They also adhere consistently to the principle of the material stake of the workers in the results of their labor. Cash prizes are awarded for economies in excess of the plan. Thus, for economy in the use

tires, the drivers receive 30 per cent of the value of the savings so effected.

We present the example of the cost management assign-

ment for 1958 of the first field brigade of the Stalin kolkhoz:

	Name of Crop					
	Spring Grains	Potatoes	Sugar beets	Silage corn	Perennial Grasses for Hay	Apples
Actual sown area (in ha.)	109	31.5	8.5	17.5	13	22
Yield (from 1 ha.)	13.2	132	150	200	25	84 kgs.-1 tree
Total harvest (in centners)	1,439	4,158	1,275	3,500	325	180
Workday inputs:						
Total	2,152	2,905	2,423	700	325	1,038
Per 1 centner of produce	1.5	0.7	1.9	0.2	1.0	5.8
Horse-labor days	287	249	100	156	162	150
Tractor work volume (in ha. of soft tillage)	270	80	40	70	10	11
Motor transport inputs (in kilometer-tons)	38,310	3,320	1,696	1,120	102	1,000
Inputs in terms of money (in rubles):						
Total	50,806	46,903	26,718	14,443	5,508	13,032
Per 1 centner of produce	35.31	11.29	20.95	4.13	16.95	72.37
Including:						
Workday wages:						
Total	17,216	23,240	19,384	5,600	2,600	8,304
Per 1 centner of produce	11.96	5.6	15.2	1.6	8	46.13
Seed:						
Total	15,297	11,419	510	1,600	390	—
Per centner of produce	10.63	2.75	0.40	0.46	1.20	—
Fertilizer and pest control:						
Total	—	1,038	612	1,435	260	616
Per centner of produce	—	0.25	0.48	0.41	0.80	3.42
Animal draft power:						
Total	2,540	2,204	885	1,380	1,437	1,327
Per centner of produce	1.74	0.53	0.69	0.40	4.42	7.37
Tractor work:						
Total	9,450	2,800	1,400	2,460	350	385
Per centner of produce	6.57	0.67	1.10	0.70	1.08	2.15
Motor transport:						
Total	3,444	2,996	1,530	1,008	146	900
Per centner of produce	2.40	0.72	1.20	0.29	0.45	5
General brigade expenses:						
Total	2,895	3,203	2,397	960	325	1,500
Per centner of produce	2.01	0.77	1.88	0.27	1.0	8.3

Cost management is having a beneficial effect on the economic position of the Stalin kolkhoz. Production expenses

are being reduced, as can be seen from the following table (in rubles and kopeks per centner of produced output):

	1955	1956	1957	1958 (planned)
Grains	34-07	48-69	36-74	30-57
Potatoes	17-60	21-96	14-30	11-22
Root crops	18-20	13-40	12-66	10-52
Milk	123-07	100-60	96-43	70-00
Meat from horned cattle (live weight)	642-00	468-60	407-76	448-37
Pork	1,658-00	1,080-00	773-00	463-00
Mutton	684-00	743-00	497-00	378-43

The economic effectiveness of cost management is also sealed in the high rate of growth of the non-distributable

kolkhoz fund, as witnessed by the following figures (shown on page 86).

Years	Non-Distributable Fund		Including					
	In Thousands of rubles	In % of 1950	Buildings and Structures		Transportation		Machinery and Equipment	
			In 000 of rbs.	In % of 1950	In 000 of rbs.	In % of 1950	In 000 of rbs.	In % of 1950
1950	3,150	100	1,013	100	266	100	404	100
1953	4,881	155	1,658	164	342	128	593	147
1956	8,690	276	3,446	340	534	201	705	175
1957	10,200	324	4,337	428	560	211	830	205

As the economy of the kolkhoz has grown stronger, the monetary workday payments have also risen: from 1 million rubles in 1950 to 1.6 million rubles in 1953 to 3.5 million rubles in 1957.

Cost management is a most important lever in the struggle to reduce production costs to further strengthen the communal sector. Cost management experience on leading kolkhozes in our country is proving the high economic effectiveness of this method of management. It demands from the kolkhoz leaders a more profound and concrete grasp of the economics of artel management, the discovery and exploitation of additional untapped possibilities for increasing communal production and for reducing unit costs. The principles of cost management should be applied more extensively on the kolkhozes of our country based on the study and generalization of advanced practice.

N. Kiriyenko:

Put Kolkhoz Wages in Order

The planning figures for the development of the national economy of the USSR during 1959-1965 envision a further sharp intensification of agriculture. It is intended by the end of the seven-year period to raise the yield of grains to

10-11 billion poods (164-180 million tons) per year against 8.5 billion poods in 1958, and to increase considerably the production of milk, meat, vegetables and industrial crops. The rapid rate of growth of agricultural production is possible thanks to the vast superiority of the socialist economic system, the growing might of Soviet industry, which is supplying kolkhozes and sovkhoses with machinery and all other material and technical equipment. The fulfillment of the projected program for the further development of agriculture will be accompanied by the perfecting of socialist production relations and the closer drawing together of the two forms of socialist ownership — kolkhoz and national ownership.

One of the basic tasks confronting agriculture is to raise the productivity of labor and to reduce production costs. It is of great importance to its successful completion that the wages of machine operators and executive kolkhoz cadres be adjusted on the basis of the experience available in the payment of wages to workers on sovkhoses, where the wage level is directly dependent on the volume of produced output and on the reduction of the costs of its production. Take, for example, the economic development of the Lenin and Shevchenko kolkhozes on the one hand, and of the "Revolutionist" sovkhos, Sinelnikovo raion, Dnepropetrovsk oblast, on the other. Pay for fulfillment on them of norms for tillage, the cultivation of autumn plow land, harrowing and other jobs amounted in 1958 to:

	Workers using DT-54 tractor				Workers using S-80 tractor			
	Pay (in rubles)		Total for norm		Pay (in rubles)		Total for norm	
	Tractor Drivers	Trailer Hands	Rubles	%	Tractor Drivers	Trailer Hands	Rubles	%
"Revolutionist" sovkhos	40.0	18.0	58.0	100	56.0	25.2	81.2	100
Lenin kolkhoz	78.2	58.6	136.8	236	109.5	82.1	191.6	237
Shevchenko kolkhoz	63.2	47.4	110.6	191	88.5	66.3	154.8	191

It can be seen from these data that the tractor drivers on the Lenin kolkhoz received 38.2 rubles, and on the Shevchenko kolkhoz 23.2 rubles more than on the "Revolutionist" sovkhos. On these kolkhozes even the labor of the trailer hands is more highly paid than that of the sovkhos tractor drivers. The production norms and rates must be revised, which will make possible the economizing by the kolkhozes of greater amounts of money which at present, to tell the truth, are being squandered.

The same waste of pecuniary means results from the existing system for the remuneration of the labor of

combine operators. The combine operator receives as much money and grain for working several weeks on the kolkhoz as the other workers receive for working a whole year. In 1958, for example, combine operator N. Vysotsky harvested 174 hectares of cereals during fourteen days' work at the Lenin kolkhoz, for which we was credited with 2,700 rubles and 114 poods of grain. Translated in terms of money, the wages of this combine operator amounted to 6,405 rubles. The workday was being paid on the kolkhoz at the rate of 15.7 rubles. Consequently, the earnings of this combine operator were equivalent to the pay of 408

workdays. In 14 days of work, the combine operator earned 29 workdays, or, at the rate of 455 rubles per day. Unfortunately, this example is not unique. At the Shevchenko kolkhoz, Comrade Dyachkov harvested 304 hectares in 17 working days with an RSM-8 combine and received 158 rubles. The kolkhoz was paying for workdays at the rate of 16.6 rubles each. Consequently, this combine

operator was credited with 323 workdays, or 77 workdays less than the established kolkhoz yearly minimum for men. On the very same kolkhoz in 1958, Ya. Pobegal harvested 193.2 hectares in 18 working days with an S-4 combine. His wages for this performance were higher than the average sovkhov wage.

Date of Job	Hectares harvested	Grain Output (Centners)	Wages Credited, in		Pay for the same work on sovkhov was, in		Excess of kolkhoz over sovkhov pay, in	
			Rubles	Grain (in kg.)	Rubles	Grain (in kg.)	Rubles	Grain (in kg.)
July 12	5	108.3	31.8	38.6	36.0	16.2	—	22.4
July 14	14	188.3	90.6	77.0	73.2	18.2	17.4	48.8
July 22	26	274.0	181.6	119.0	117.8	41.0	63.8	78.0
Total for the period	193.2	3,107.3	1,460.0	1,266.0	746.0	466.0	714.0	800.0

At the Shevchenko kolkhoz, as at many other artels, the wages of combine operators are badly overstated: here, for exactly the same volume of work, they received 714 rubles and 8 centners of grain more than their colleagues on the sovkhov. Such a high wage for combine operators on kolkhozes results in higher production costs, brakes the improvement of worker activity and the learning by combine operators of related trades.

It follows from what has been said that the kolkhozes have to revise combine operator wages to conform with farm conditions. At first they may apply the norms and rates in use on sovkhoves, correcting them in accordance with the level of the workday pay.

It has also become pressingly necessary to revise kolkhoz wages for machine operators in other lines. There can hardly be any justification for the norms and rates in effect for mechanists working on SK-2.6 beet-harvesting combines. On the Shevchenko kolkhoz, mechanist N. Tupoi earned 1,860 rubles in 22 working days or, based on a workday rate of 16.6 rubles, 112 workdays, which is almost equivalent to the monthly earnings of the kolkhoz chairman. The wages of leaders of tractor-field brigades, their assistants and accounting clerks, also have to be improved.

For example, at the Peremog (I Have Overcome) kolkhoz, Dnepropetrovsk raion, Dnepropetrovsk oblast, the leader of the tractor brigade was credited for the year with (in terms of money) 21,360 rubles, or at the rate of 1,780 rubles per month, and the accounting clerk of the tractor brigade received 1,127 rubles a month. At the same time, the kolkhoz chairman was receiving 1,647 rubles a month, 133 rubles less than the leader of the tractor brigade was getting. The wages of tractor brigade leaders or of deputy leaders of tractor-field mechanization brigades are predominantly based on the norms and rates that had been in effect on the machine-tractor stations. On the same Shevchenko kolkhoz, the deputy leader of the tractor-field mechanization brigade (which had only 4 tractors altogether) was credited at the rate of 0.75-1.25 workdays for fulfillment of the tractor-norm. During 8 months of 1958, the deputy mechanization brigadier Comrade Nikolenko was credited with 845 workdays, or at the rate of 106 workdays per month, which almost equals the wages of the kolkhoz chairman and is 20-30 workdays more than the number credited to the leader of the tractor-field brigade.

In view of the importance of putting kolkhoz wages in order, the Ministry of Agriculture of the USSR has worked

out prototype 1959 norms and rates in workdays for six zones of the republic. The zone of the Northern steppe includes the Dnepropetrovsk, Stalino, Lugansk and Kirovograd oblasts. The standardization of wages on the kolkhozes of this zone are based on the norms and rates, expressed in workdays, in force at the Gorki artel, Nikopol raion, Dnepropetrovsk oblast.

It is fully opportune and useful to work out model norms and rates by zones. In our view, however, it is advisable to work out model norms and rates not only in terms of workdays, but also of money. Practice on many kolkhozes has shown that payment of wages by workdays is beginning to give way to more progressive forms of labor remuneration, and, particularly, to monetary wages without regard for the crediting of workdays. This attests to the growing soundness of kolkhoz economies and to the increasing prosperity of the kolkhozniks. Those kolkhozes that have not as yet been able to convert fully to monetary wages can still make use of model norms and rates in terms of money. On the basis of these models, such kolkhozes could draw up more correct norms and rates in terms of workdays.

The basic flaw in the workday norm and rates worked out by the Gorki kolkhoz for 1959 consists in that the wages of kolkhozniks, especially of machine-operators and executive cadres, do not take account of the wage level that has emerged in the economy, and the wages of kolkhozniks are not compared with the wages of workers on sovkhoves. Calculations show that, in accordance with these norms, owing to the, as usual, high wages, a tractor driver on this kolkhoz will receive far more than is paid on a sovkhov. For example, for harrowing autumn plow fields, a tractor driver on this kolkhoz receives, on fulfillment of the norm, 63 rubles, as compared with 40 rubles on a sovkhov, or 50 per cent more.

Another fundamental defect of the new norms and rates on the Gorki kolkhoz consists in that the leaders of tractor brigades (and also the deputy leaders of tractor-field mechanization brigades) are paid in accordance with the fulfillment of the shift norms by each tractor driver. At the same time, however, leading kolkhozes are now paying wages in accordance with the fulfillment of the gross production output plan which, of course, is more correct.

The experience of the Lenin kolkhoz is worth noting. Here the leader of a tractor brigade is credited for each

ton of grain harvested with 0.10 workdays, of corn with 0.05 workdays and so forth. On fulfillment of the yearly harvest plan, the leader of the brigade earns 900 workdays, or 75 workdays a month, and the deputy brigade leader earns 85 per cent and the accounting clerk 70 per cent of the leader's wages. The wages of the leader of a mixed brigade on this kolkhoz, depending on the size of the gross production output, are determined on the basis of a monthly rate of 90 workdays, while his mechanization assistant earns 10 per cent less and the accounting clerk 40 per cent less.

In the revision of its wage system, the Lenin kolkhoz took into account the need to cut down on every kind of non-productive expense and to place all brigades and farms on an internal cost management basis, which has helped to increase the labor productivity of the kolkhozniks and has contributed to the development of all branches of the enterprise.

The wages of executive kolkhoz workers should also be revised. Thus, the wages of the chairmen and other executives and specialists on several kolkhozes in the Dnepropetrovsk oblast are several times higher than the wages of kolkhozniks, and even exceed the wages of sovkhov directors. In 1957 the chairman of the Lenin kolkhoz, Sinelnikovo raion, received an average of 3,000 rubles a month, the deputy chairman — 2,170, the accountant — 2,180, a senior medical technician (with secondary education) — 1,700, and a field team leader 540 rubles. The director of the "Revolutionist" sovkhov (which has more than 16 thousand hectares of land, while the Lenin kolkhoz has only 7.6 thousand hectares) had been receiving 1,900 rubles a month.

Excesses in the remuneration of executive kolkhoz cadres lessen their personal interest in the growth of the farm production volume and hinder the introduction of monetary wages as one of the progressive forms of labor compensation. This is why model norms and monetary rates must be worked out by zones and raions, and why maximum and minimum wages of administrative and managerial kolkhoz personnel must be determined. There is no reason why the wage level on certain kolkhozes should be considerably higher than on sovkhoves, and such excesses do nothing to promote the growth of production. The drafting and application of economically sound norms and rates should eliminate all excesses in labor remuneration.

By enhancing the material stake of the kolkhoz cadres, a correctly set up kolkhoz wage system will contribute to the successful execution of the resolution of the December Plenum of the CC CPSU and the XXIst Party Congress on the further development of agriculture.

I. Novikov:

Cost Management and Improving the Sovkhov Profit Situation

The socialist reconstruction of agriculture in our country and its provision with modern equipment have greatly increased the scale of agricultural production and raised the labor productivity of kolkhozniks and sovkhov workers. Gross and commodity agricultural production have multiplied several times although the percentage of the population engaged in agricultural production has decreased to almost half the pre-revolutionary figure. The achievements of agricultural production were especially great during the

last five-year period, during which the production and delivery of farm products underwent a considerable increase which has had a beneficial effect on the living standard of Soviet people.

The sovkhoves play a not insignificant part in the production and delivery to the state of agricultural produce. There are at present 6 thousand sovkhoves in the USSR. During recent years new grain and livestock farms have been set up in regions of virgin and unused land development and on the lands of economically weak and land-heavy kolkhozes, and also cotton-growing farms in barren steppe regions. In 1958 the sovkhoves delivered to the state 1,371 million poods of grain, which comprises about 40 per cent of the total volume of state purchases, 5 million tons of milk and 1,275 thousand tons of meat, or 23 per cent of the state purchases of these products. The planning figures for the development of the national economy during 1959-1965 provide for the further growth of production and relative importance of the sovkhoves in state purchases of agricultural products, and of livestock products in particular. In addition to increasing their production output, the sovkhoves are called upon to raise their profitability and to set an example for neighboring kolkhozes.

The level of outlays for production, the prime cost of the product, is decisive to the achieving of profitability. The planning figures of the seven-year plan provide for a reduction by 1965, in comparison with 1957, of the production cost of grains on sovkhoves of not less than 30 per cent, meat — 19 per cent, milk — 23 per cent, wool — 10 per cent, and cotton — 20 per cent. Hence each sovkhov should not only strive to extract as great a quantity of produce as possible from each unit of land, but should also be operated economically, making the wisest possible use of all capabilities, and adhering strictly to a policy of economizing. This requires that the attention of all the workers of sovkhoves be concentrated on economy and thrift, so that all branches of sovkhov production may be made profitable.

The reduction of production costs depends above all on increasing the harvest yield of agricultural crops and the productivity of livestock. The seven-year plan projects measures aimed at the achievement of this goal: the introduction of scientifically sound farming systems in conformity with the conditions displayed by the individual zone of the country and by each farm; the further specialization and improved geographic distribution of agricultural production; the extensive application of scientific advances and progressive practices; the introduction on each sovkhov of correct crop-rotations with the requisite quantity of bare fallow in the drought zone as the most important element in the farming system, which determines the direction and rational combination of branches of production; the securing of a correct system of soil cultivation, and of planting all agricultural crops in optimal time limits and in high-grade seed; a reduction in the time required for gathering harvests, the wider use of local mineral fertilizers, an improvement in the protection of farm plants from pests and disease; improved pedigree breeding; increasing the numbers of pedigree cattle and the widespread utilization of highly productive animals for artificial insemination; the creation of a firm fodder base for livestock; a continuation of the work to extend the area of irrigated lands in cotton-growing regions, of land-reclamation in the northwestern and western regions, and also the irrigation of pasture lands with little or no water; the concentration of potato and vegetable farming in zones adjacent to large cities and specialized sovkhoves, utilizing for this purpose mainly floodlands, irrigated and drained peat-bogs.

In addition, it is also intended to expand further the supplementary and subsidiary branches (horticulture, beekeeping, fisheries and others), and to develop further such remunerative branch as poultry farming. At the same time, the processing of produce must be organized, as also the most profitable possible market for it by delivering it to industrial centers for sale directly to the consumer. If production costs are to be reduced, it is extremely important that the most efficient possible use be made of

the basic means of production. However, there are still a number of defects in this regard which must be eliminated.

One such defect is the uneven supply of basic funds to enterprises. The following data on units engaged in diverse production specializations in several oblasts of the RSFSR under the fifth five-year plan, gives an idea of the saturation of sovkhozes with basic funds and of the economic effectiveness of capital investments (in rubles):

	Average amount of basic funds per ha. of arable farm land	Income per 1,000 rubles of basic funds (Yearly average)
Grain sovkhozes		
Omsk oblast	599	528
Voronezh oblast	975	495
Meat and Dairy Sovkhozes		
Omsk oblast	651	412
Voronezh oblast	1,176	655
Pig-Raising Sovkhozes		
Penza oblast	1,402	713
Omsk oblast	924	738
Voronezh oblast	2,027	823

The uneven saturation of basic funds and their varying economic effectiveness is also characteristic for sovkhozes within the same area of specialization, for example,

the pig-raising sovkhozes of the Penza oblast, as witnessed by the following figures (in rubles):

	Average amount of basic funds per ha. of arable farm land	Income per 1,000 rubles of basic funds (Yearly average)
Lassalle sovkhoz	2,590	874
Tito sovkhoz	2,090	727
Sofiisky sovkhoz	2,195	501

If the economic effectiveness of capital investments is to be increased, inactive equipment and idle tractors and farm machinery must be put to use by redistributing them among sovkhozes.

The determination of the size of capital investments should be based on the following: under identical production conditions, roughly the same outlays should be made for the creation of basic funds (computed per 1 hectare); these sovkhozes deserve preference which obtain the highest return per 1,000 rubles of basic funds.

Inter-sovkhoz cooperation is highly desirable when new construction is undertaken, as this would considerably reduce the demand for capital outlays. For example, schools, hospitals, lying-in homes and certain other projects could be built for 2-3 adjoining sovkhozes.

Circulating funds should also be used better; their diversion to non-plan purposes should not be allowed and their turnover should be accelerated.

The profitability of the sovkhoz enterprise depends in many ways on the quality of the produced output: the higher the quality, the more substantial the receipts from its sale. Nevertheless, these questions have not yet been accorded the attention they deserve. Thus the delivery of underfed cattle

raises the cost of meat by 30-35 per cent, which lowers the profitability of the enterprise.

The prices at which produce is sold also influence the profitability of farms. The sovkhozes are selling their basic produce at new delivery prices which, in combination with reduced production costs, enable the sovkhozes to operate without loss and to receive a net income in the form of profit. The new delivery prices for grain, milk and meat are differentiated from one to another of 17 agricultural zones in accordance with their natural and economic conditions.

Unified state selling prices are currently in effect for sovkhozes and kolkhozes alike on farm machinery, trucks, their spare parts, petroleum products, mineral fertilizers and fodder concentrates, which is placing the sovkhozes and kolkhozes on an even footing in their relations with industry, and is furthering the consolidation of the kolkhozes and bringing kolkhoz-cooperative ownership closer to national ownership.

The rise in the selling price for sovkhozes of machinery and materials will necessitate additional expenditures. This may cause the production costs of certain forms of sovkhoz produce to go up, especially of the output of those

livestock farms where no solid fodder base has yet been laid in and a considerable quantity of fodder concentrates have been acquired at reduced prices (without the turnover tax). Hence, simultaneously with intensified efforts on all sovkhozes to lay in a solid fodder base capable of supplying livestock with low-cost feeds of local origin, many sovkhozes will require as a temporary measure the adjustment of delivery prices on agricultural produce to compensate them for their additional costs.

Labor, monetary and material unit production costs can be reduced by strict adherence to a regime of economy, which is a principle of socialist management. The most important means of carrying out a regime of economy is cost accounting.

The implementation of costing on sovkhozes requires the improved organization of the current and long-range planning of sovkhoz production.

On the basis of the planning figures ratified by the XXist Congress of the Communist Party of the Soviet Union, the sovkhozes are currently working out concrete long-range plans for increasing their farm produce output during 1959-1965. Planning and agricultural agencies should render the sovkhozes every possible assistance in the drafting of these plans. The leaders and specialists of sovkhoz sections and farms, production brigades and front-rank farm workers must be attracted to take part in the working out of plan tasks and obligations.

The long-range plans of sovkhozes should fully reflect all capabilities for the further expansion of operations, the intensification of labor productivity, the increasing of agricultural produce output and the reduction of its production cost.

The correct organization of operations through cost management requires constant control by the ruble of the activities of the sovkhoz as a whole and of its various parts (sections, farms, etc.). This control is exercised through such indices of economic activity as the fulfillment of the production and financial plans, the prime cost of production and profitability, the quality of the realized produce, the observation of financial-estimate discipline, the purposeful utilization of circulating funds, and the fulfillment of contractual and other payment obligations.

Intra-sovkhoz cost management has several distinctive features. Sections (farms) and production brigades do not conduct transactions with purchasers of agricultural produce, do not enter into contracts with them, do not have, as a rule, their own balance sheets. Intra-sovkhoz cost management defines the relations between the sovkhoz leadership and its sections (farms) and other production units, increasing their responsibility for the fulfillment of production goals, norms for the expenditure of material and pecuniary means, and for increasing labor productivity.

The importance of intra-sovkhoz cost management is well brought out by the example of the cotton-growing "Pakhta-Aral" sovkhoz, South Kazakhstan oblast, one of the largest agricultural enterprises in the country. Cost control is here effected not only in sections and on farms, but even production brigades. The latter enjoy a certain administrative autonomy. Tracts of arable land, machinery, tools and other means of production are assigned to the brigades. The sections and subsidiary enterprises run their own accounts autonomously, the analytical work is well set up, the fulfillment of production plans and adherence to production expenditure limits are systematically checked. As a result of the correct organization of field labor by means of intra-sovkhoz cost management, the sovkhoz offers the cheapest cotton in the country and is receiving a sizeable net income. Livestock raising, too, has been placed on a

cost management basis, which has enhanced the material stake of the workers of the farm — the milkmaids, shepherds and others. The result has been a rising milk yield at declining production cost. In dairy herd No. 1, for example, the milk yield rose by 177 kg. and the prime cost of milk fell by almost 20 per cent during 1 year alone.

However, intra-sovkhoz cost management is underrated at many enterprises. Production output tasks are not carried out and expenditure limits are either not adhered to by sections and farms or not at all, or else they are complied with much too late, and there is no smoothly operating check on their fulfillment or compliance.

The interests of production growth and of the improvement of the economic activities of the sovkhozes demand that their subdivisions, including brigades, be granted broader autonomy. This will develop their initiative, and will increase their responsibility for and enhance their stake in the fulfillment and overfulfillment of their plans, in increasing labor productivity and decreasing production costs.

Sovkhozes should supply sections (farms) with farm machinery and inventory on the basis of requests by the managers of sections and farms. This will prevent, to a certain extent, the delivery of unnecessary and superfluous machines and inventory.

It might possibly prove advisable also to empower the managers of sections (farms) to hire and fire workers within the limits of the established table of employee strength.

Every means should be employed to expand the ways of encouraging the members and leaders of production brigades to improve their performance records. The sovkhoz fund and the fund for the strengthening and expanding of operations should be used to improve the economic performance and to introduce and strengthen cost management practices. When issuing prizes, for example, account must be taken of the results of the operations of subdivisions working on a cost accounting basis and of the economies they have achieved in production expenses.

The implementation of costing practices requires the improvement of intra-sovkhoz planning. On the basis of the production-financial plan of the sovkhoz, yearly production plans should be drawn up for sections and farms, and also their worker strength, wage funds and fuel and feed consumption limits (by months) should be drawn up for them. In doing this, account should be taken of the peculiarities of each operation and seasonal production expenses. The positive experience of the "Pakhta-Aral" sovkhoz (South-Kazakhstan oblast), the Detskoselsk sovkhoz (Leningrad oblast) and others, points to the usefulness of each month imparting to the brigades and other production units their tasks and expenditure ceilings.

Intra-sovkhoz cost management requires good bookkeeping and analytical work. The analysis of the activities of subdivisions working on a cost accounting basis should be done by the leaders, specialists and the chief accountant of the sovkhoz, and also by the manager of the individual section (farm). The experience of the "Gigant" (Giant) sovkhoz (Rostov oblast) and the Kuban sovkhoz (Krasnodar krai) teaches that analyses should be made not only at end of year or of quarter, but also at the end of each month. This will make possible the timely elimination of defects in work and non-productive expenditures.

The confrontation of actual and planned figures on production and expenditures or of expenditures with norms, and also of this year's with last year's corresponding figures and the comparison of the achievements of front-rank workers, should be regarded as a basic method of analysis.

A correct organization of the analytical work will provide

the establishment (depending on the field of specialization of the sovkhos) of a group of basic economic indices on which checks should be made during the course of the entire

year. Below we present our recommended schedules of such indices by sections (farms). The first of them shows savings or overspending in production expenditures.

Production Expenditures by Section (farm) for June, 1958

(in thousands of rubles)

Basic Expenses	During month of record		Since beginning of year	
	Saving	Overexpenditure	Saving	Overexpenditure
Farming				
Wages for completion of work	—	10	40	—
Fuel and lubrication for completion of work	5	—	15	—
Livestock Raising				
Earnings on output yield:				
(a) for milk and new-born young	5	—	8	—
(b) for extra horned cattle weight	—	7	—	20
(c) for care of sheep	5	—	7	—
Feed in terms of output yield:				
(a) for the dairy herd	—	3	5	—
(b) for pigs	—	10	—	15
(c) for sheep	8	—	12	—
Care of draft animals	—	6	—	10
Housing and communal activities	—	5	—	8
Routine building repairs	—	3	4	—
Routine repair of machinery and equipment	—	5	—	12
TOTALS	23	49	91	65

In our example, savings on individual items amounted to 23 thousand rubles during the month of record and over-expenditures were 49 thousand rubles, while 91 thousand rubles have been saved since the beginning of the year and

65 thousand rubles overspent.

With the aid of this schedule, the results of the month's operations are ascertained on the basis of the monthly record of production and norm expenditures in farming and

Results of the Production of Livestock and Poultry Farming by Sections (Farms) for June, 1958

Production	Unit of measurement	During month of record				Since beginning of year			
		Plan over-fulfillment		Plan under-fulfillment		Plan over-fulfillment		Plan under-fulfillment	
		Quantity	In 000's or rbs.	Quantity	In 000's of rbs.	Quantity	In 000's of rbs.	Quantity	In 000's of rbs.
Gross milk output	mq.	200	20	—	—	300	30	—	—
New calves	head	—	—	20	2	—	—	30	3
Additional horned cattle weight	mq.	30	15	—	—	50	25	—	—
Pigs older than 2 months, additional weight	mq.	—	—	35	28	—	—	50	40
Wool output	mq.	10	12	—	—	10	12	—	—
Vegetable increase	mq.	20	8	—	—	30	12	—	—
Egg output	dozen	500	3.5	—	—	1,000	7	—	—
TOTALS		—	58.5	—	30	—	86	—	43
Metric quintal.									

livestock raising as established in the plans of sections and farms. The figures from the beginning of the year are entered as the ascending totals of monthly operational results.

The savings and overexpenditure amounts for farming operations and in connection with expenses involved in the production of livestock produce are computed by comparing the actually credited wages, consumed fuel and fodders per unit of work (in farming) and per unit product (in livestock raising) with the standards provided by the plans for the given month. It should also be ascertained how economically funds are being spent for the care of draft animals and in subsidiary production. By comparing the actual and planned prime cost of one horse-labor day (or ox-labor day), the amount being saved or overspent during the month and since the beginning of the year may be ascertained, amounting in our example to 6 thousand and 10 thousand rubles.

The intensification of control of expenditures in domestic and communal maintenance, for routine repairs and overhead expenses requires that the yearly limit for each

section (farm) be broken down into quarters and, at the beginning of each of these, into months, and then that a monthly check be made of how these limits are being observed.

Losses and accumulations arising out of changes in the quality of production are defined as the difference between its sale value as provided for in the plan and the actual revenue taken in from a purchasing organization.

The second schedule helps to determine the cost of products produced in excess of and less than the total planned production.

This example refers to June, and "Since the beginning of the year" to the first half-year, when it is not yet clear whether the plant-growing output plan will prove to be over or underfulfilled. Hence, the graph is only filled out with figures relating exclusively to livestock and poultry production.

More attention should be given to the introduction of cost management throughout every sector of sovkhos production. This will enable a more rapid liquidation of unprofitableness of individual farm operations and will secure a good profit position to all sovkhoses.

Khozhanazarov:

Combined Scientific Session on Problems of the Development of the Productive Forces of Central Kazakhstan

In November of last year, the Academy of Sciences of the Kazakhstan SSR, jointly with the Ministry of Geology and Conservation of Mineral Deposits of the republic and the Karaganda economic council, conducted a scientific session devoted to problems of the development of the productive forces of Central Kazakhstan. From the rostrum of the 1st Congress of the CPSU, the president of the Academy of Sciences of the KSSR, K. I. Satpayev, remarked on the great importance of this conference, which discussed important problems of the economics of the largest raion of the republic in the light of the theses of Comrade N. S. Khrushchev's report on planning figures for the development of the national economy of the USSR during 1959-1965. The session was attended by 860 persons representing 112 enterprise organizations — scientific research, design and other establishments engaged in research on problems of Central Kazakhstan. The participants in the session heard reports and took active part in the discussion of them. Academician K. I. Satpayev made at the session a large, substantial report on "The Complex of Mineral Wealth of Central Kazakhstan." He reported that in Central Kazakhstan deposits have been discovered of all stratigraphic systems known to geologic science, all forms of magmatic rock — from ultra-acid to ultra-basic, from the deepest to the surface. Here about 80 coal deposits have been discovered, including such giants as the Karaganda, Ekibastuz and the Maikyuben basins. It is now an urgent task to put new pits into operation for the extraction of coal and to construct concentrating plants on sched-

ing. It is extremely important for the development of the economy of Kazakhstan that the huge coal reserves of Ekibastuz and the low-ash lignites of the Maikyuben basin can be worked by the open pit method. This will make it possible over the next few years to supply coal at the lowest cost not only to the Northern oblasts of Kazakhstan, but to other raions in the Urals and Western Siberia as well. The speaker believes that prospecting for low-ash coking coal should be pursued energetically in Central Kazakhstan, especially in the raions to the west and northwest of Karaganda.

Satpayev noted that Central Kazakhstan has now become one of the richest sources of iron and manganese ore in the country. A considerable portion of all our explored reserves of copper ore is located here. The high-output Bolshoi Dzhezkazgan copper combine is now being connected to be supplied from the ores of Dzhezkazgan. In addition to huge reserves of copper ore, this raion offers exceptionally favorable conditions for exploitation by mine engineering and technology.

The Kounrad copper deposits are the nearest source of copper to the Balkhash plant. The Kounrad ores also contain molybdenum and several other useful constituents. The

deposit is being worked by the open-pit process. Exploitation of a third deposit — at Boshchekul — will be commenced in the coming seven-year period.

The speaker proposed the reconstruction of the pit operations of Kounrad to conform to new contours and the depth of the industrial ore veins, to intensify and expand geological exploration work in other raions. For the multiple extraction of all useful elements from the Dzhezkazgan deposits, he recommended that the project of the Bolshoi Dzhezkazgan metallurgical plant provide for the thorough recovery of the sulfur and dust which contain by far most of the rare and scattered constituents of the ore.

At the present time, Central Kazakhstan has become almost the equal of the Altai ores and will in the future probably outstrip this oldest and richest of polymetallic regions of our country. Hence the future extensive and planned geological study of Central Kazakhstan constitutes one of the most important, top-priority tasks. The working out of the soundest possible ways and methods for the optimal and correct utilization of the natural resources of the raion is exceptionally urgent now that the XXII Congress of the CPSU has ratified the plan for the development of the national economy of the USSR during the next seven years.

N. A. Krylov, the head of the Department on Economic Raions of the KSSR Gosplan, read a report on "The Productive Forces of Central Kazakhstan and the Problem of Their All-Around Utilization From the Standpoint of the Coming Seven-Year Plan." He noted that Central Kazakhstan possesses vast raw material resources, but is working them in insufficient quantities. If correct proportions are to be achieved in the geographic distribution of productive forces, simultaneous utilization will have to be made of such factors as raw materials, population concentrations and the organization of production and consumption.

The productive forces of Central Kazakhstan in the field of the coal industry and of heavy and light metallurgy will undergo fundamental changes during 1959-1965, which will open up broad vistas for the further development both of these fields and of the chemical and machine-building industries in the republic.

Comrade Krylov stressed the importance of Central Kazakhstan as a producer of grain and livestock products. The development of virgin and unused lands has transformed this raion into a region of large-scale wheat growing. The four oblasts of Central Kazakhstan contain 212 grain sovkhozes (more than half of all the grain sovkhozes in the republic) and one fourth of all the livestock sovkhozes in Kazakhstan.

The chairman of the Karaganda economic council, D. G. Onika, devoted his report to the state and outlook for the development of mineral fuel extraction in this raion. The presence of a most rich coal basin, containing vast reserves of high-quality coking coal, is of great importance to the Karaganda economic raion. The Karaganda basin is the chief source of supply of coking coal and power for Kazakhstan and the South Urals. The uninterrupted growth of the metallurgical industry of the Urals and of power capacities in Kazakhstan and the Urals, the expansion of the railway network in the Kazakh SSR in connection with the reclaiming of new lands and the development of industry, and the setting into operation of the heavy metallurgical giant of the East — the Karaganda metallurgical works —

require a considerably stepped-up extraction of coal, especially coking coal, in the Karaganda economic raion. Therefore, there will have to be a sharp rise in the general extraction of coal during the period 1959-1965 as compared with the 1957 coal output figures, as indicated by the plan presented. It is intended that the development of coal mining during the period of the seven-year plan will be achieved mainly in the new raions (Saran, Sharubai-Nura, Tentek and Shakhan).

In order to increase the production of enriched coking coal, the speaker acknowledged the necessity of charging the Leningrad Institute for Design and Planning of Mining Equipment with the working out, jointly with the Institute of Coal Enrichment and with the participation of the Academy of Sciences of the Kazakh SSR and the Karaganda economic council, of proposals for the construction in the Karaganda coal basin of a concentrating plant with a total capacity of 8-10 million tons per year.

As we know, the labor productivity of workers increases perceptibly at large mines, extraction costs go down, the progress of mine faces is substantially stepped up and thereby also loading at the cleaning face. In consideration of all this, Comrade Onika recommended the construction of mines with a productivity of not less than 1.2 to 8 thousand tons per 24-hour day.

In a report on "The Development of the Heavy Metallurgy of the Karaganda Economic Region," director A. P. Popov of the Karaganda metallurgical works dwelt on certain questions of the development of heavy metals production. He noted that, thanks to the construction of the new metallurgical works, the Karaganda economic-administrative region is being transformed into a mighty supplier to the country of coal and metals. The enterprise under construction will be the largest in the Union; it will exceed the Kuznetsky combine in metals production and all existing plants in the country in the modernity of its equipment. Production processes will be completely mechanized and automated. Great blast and open hearth furnaces will be built here. When operating at planned capacity, this plant will put out considerably more pig-iron per year than is currently produced in some capitalist countries.

Increasing the useful capacity of blast furnaces and the mechanization of labor-consuming processes are helping radically to increase labor productivity and are making it possible to increase the per-worker smelting of pig-iron to 11 thousand tons a year, while it goes no higher than 7 thousand tons a year at leading plants in the USA. The entire pig-iron output of the plant will be shipped to steel mills and only a small portion of it will be released on the market as commodity production. These steel mills will be the first in the USSR to produce ingots weighing between 15.5 and 28 tons.

L. I. Lyudogovsky, the director of the Council Department for the Study of Productive Forces of the AS USSR, read a report on "The State and Prospects for the Development of the Production of the Rare Alloying Metals of Central Kazakhstan." The rare metals which abound in Central Kazakhstan include molybdenum and tungsten. They are very important to modern engineering and are used in the production of high-quality steels, and of special alloys and castings. For the development of the production of rare alloying metals in Central Kazakhstan, a factory will be built during the current seven-year period which will become one of the largest ferroalloy enterprises in the country. The speaker believes that provision must be made here for the production of molybdenum and tungsten steels of various grades from ore concentrates of the Central Kazakhstan deposits, and also for the smelting of

ferrovanadium from vanadium pentoxide, which will be derived from vanadium slag.

The speaker believes that in the near future Central Kazakhstan should become the largest producer in the country of rare metals and ordinary ferroalloys, which will stimulate the development of the production of low-alloy and alloy steels at the Karaganda metallurgical works.

Academician A. L. Tseft, of the Academy of Sciences of the Kazakh SSR, devoted his report to the state and outlook for the development of the light metallurgical industry of Central Kazakhstan. Analyzing the proportion of valuable constituents of the copper ores of Central Kazakhstan, he suggests that the ores of Kounrad and Dzhezkazgan be regarded as polymetallic. They have been found to contain many valuable elements (lead, zinc, iron, sulfur, rhenium, gallium, indium, thallium, selenium, tellurium, cadmium, mercury, bismuth, silver and molybdenum) in sufficient quantities to justify side recovery. To prevent the loss of these valuable elements, the speaker recommends that extensive research be done on ways to increase the recovery of dispersed elements.

In a report on "The Outlook for the Development of the Chemical Industry in Central Kazakhstan," Doctor of Chemical Sciences S. R. Rafikov laid emphasis on the leading position of this region in the production of synthetic materials in the Kazakh SSR. The planning figures for the development of the economy of the republic during 1959-1965 contemplate the production in Central Kazakhstan of a large number of laminated plastics, linoleum, Linkrusta and other construction trimming materials. A great farm machinery industry is developing here, where plastics may find especially extensive application both in precision casting and in the manufacture of components. Organizations engaged in steppe and anti-seismic pile construction from lightened plastic blocks will become large-scale users of synthetic materials made from locally available raw materials. Plastics will be the basic material of the growing furniture industry.

The cable industry that has been set up in Central Kazakhstan will require a large quantity of high-quality insulation materials. The sovkhoses on reclaimed virgin and unused lands will make demands on the chemical industry of Central Kazakhstan for fertilizers, weed and pest-killers, etc.

For the rational utilization of raw material resources, better cooperation in production and complete satisfaction of the demand for chemical products, Comrade Rafikov recommends that emphasis be laid in Central Kazakhstan on the production of synthetic polymers and products of heavy organic synthesis, on developing the production of such basic chemical products as sulfuric acid, chlorine, caustic soda, phosphates, and sodium sulphide.

Basing himself on the principle of the complete chemical and power-chemical utilization of raw material resources, and also taking account of local requirements, the speaker deems it advisable to locate basic types of chemical production in the near future in the Karaganda and Pavlodar industrial centers. Here the main directions of chemical industry development could be the production of basic heavy organic synthetics and high molecular-weight compounds side by side with the development of ammonium sulphate and nitrogen fertilizers production, and later the production of various plasticizer solvents, flotation agents and detergents.

The problem of the irrigation of the industrial areas of Central Kazakhstan was discussed in the report by Academician Sh. Ch. Chokin, of the AS of the Kazakh SSR. It has been computed that Central Kazakhstan water requirement

ing the next few years from industry alone will be far excess of the capacity of local water resources. According to data of Hidroproyekt (State Trust for the Study, Design and Planning of Hydrotechnical Structures) of the SR Ministry of Electric Power Station Construction, the region will experience a considerable scarcity of water as early as 1965. This will require the channeling in of water sources from neighboring regions. After examining the features of such water sources, Comrade Chokin arrives at the conclusion that the Irtysh River would be most acceptable as a source of water supply to Central Kazakhstan.

Having analyzed the positive and negative features of several alternate plans for the irrigation of Central Kazakhstan, worked out by the Institute of Power Supply of the AS of the Kazakh SSR, Hidroproyekt, Tsentrorgiproshakht (the All-Union Central Design and Planning Institute for Mine Construction in the Coal Industry), the SOPS (Council for the Study of Productive Resources) of the AS USSR and by Engineer M. M. Davydov, the speaker adjudged the Akzharskiy (Semiarsk) and Ermak (Pavlodar) catch basins to be the most promising alternate plans, pointing out the unquestionable advantages of the Semiarsk over the Yermakovskiy "halfweg" in that, other conditions being equal, the former makes possible the extensive irrigation of the lands west of the Irtysh and offers the self-flowing transfer of Irtysh waters to the Northern regions of the republic.

The speaker reported that, on the basis of preliminary results and explorations conducted by the Power Institute of the AS of the Kazakh SSR with the participation of several other institutes, the government of the republic has brought before Gosplan USSR the question of draft projects in this field. Planning work is being pursued at the present time and Hidroproyekt is drawing up a technological-economic report on this problem.

A. I. Balbachan, chairman of the State Scientific-Engineering Committee of the Council of Ministers of the Kazakh SSR, reported to the members of the session on basic avenues of production mechanization and automatization and of improvement in technology and scientific research in the industry of the Kazakh SSR during 1959-1965. He reported that, for the coordination of work on technical progress planning and as an aid to economic councils and enterprises in drafting the plan for the development of the republic's economy, his Committee had worked out "Main Lines of Technological Renovation in the Industry of the Kazakh SSR During 1959-1965." These materials provide the organization of operations in production lines in the mines now under construction in the Karaganda Basin, also for several measures in the fields of metallurgy, mining industry and other branches of the republic's economy.

Comrade Balbachan noted that the line of products currently being put out by the machine-tool manufacturing industry does not meet the needs of many branches of industry and is not delivering new, high-quality and high-output machines and instruments to the economy of the republic. If the need of the economy of Kazakhstan for modern machinery may be satisfied, the speaker proposed a considerable expansion and specialization of the machine-building enterprises of the republic, that large-scale work be done not only in the republic but also in cooperative arrangements with plants elsewhere in the country, that existing designing and planning bureaus, testing and experimental stations for the design and testing of new machinery and equipment be expanded, and that new ones be set up.

The address of the Deputy Minister of Agriculture of the Kazakh SSR, F. E. Savitsky, was delivered on problems involved in the development of Central Kazakhstan

agriculture during the next seven years. He reported that the leading lines of activity at present in the regions of Central Kazakhstan are grain and livestock farming. Apropos of the insufficient production here of vegetables, potatoes and fruits, Comrade Savitsky devoted much of his report to the development of vegetable growing and orchard farming in Central Kazakhstan. It is planned in the near future to grow 3-4 kg. of hothouse vegetables per urban dweller. Consequently, the region will have to produce no less than 1.5 to 2 thousand tons of vegetables in hothouses. In view of prevalent soil and climatic conditions, the speaker pointed out the economic advisability of differentiating potato and vegetable-growing in Central Kazakhstan by districts. He recommended that the Karaganda district produce potatoes to fill 75-80 per cent of its needs, and to import 20-25 per cent from the Akmolinsk district, where natural conditions are favorable to large potato harvests.

As can be seen from the brief summaries of the main reports, the session discussed urgent problems involved in the all-around development of the economy of Central Kazakhstan during the next seven years. Among these, extreme importance attaches to problems of the development of the Karaganda coal basin (especially as regards the extraction of coking coal), and also to problems relating to the construction and productive operation of the "Magnitogorsk of Kazakhstan," the Karaganda metallurgical works, the diversion to Central Kazakhstan of waters from the Irtysh River by digging an Irtysh-Karaganda canal. All these problems were examined at the plenary and departmental sessions and decisions taken on them. The sessions also determined the areas in which scientific and practical work is next to be done by research establishments, including those dealing with problems of economics.

V. Puronas:

The Work of the Economics Institute of the Academy of Sciences of the Lithuanian SSR

The planning figures for the development of the national economy of the USSR during 1959-1965 provide for the further industrialization of the Lithuanian SSR, the development there of the machine-building industry, of light, food and fishing industries, the creation of a chemical industry, the strengthening of the power supply system of the republic through the construction of new and the expansion of existing electric power stations. Problems of the development of the republic's economy have been the subject of scientific research carried out over recent years at the Economics Institute of the AS of the Lithuanian SSR. Special attention was given to these problems in 1958 when, as all over the country, the materials on which were based the planning figures approved by the XXII Congress of the CPSU for the development of the national economy of the USSR over the next seven years, were being worked out and discussed in the republic.

In 1958 a group of Institute collaborators worked out four main problems, of which three bore on the solution of the chief goals set before the economy of the republic. The scale of work on these problems was somewhat expanded in connection with the reorganization of industrial and construction management. An especially large contingent of Institute scholars and practical workers of the republic was assigned to work on the problem of "The Specialization

and Cooperativization of the Industry of the Lithuanian SSR." As a result of changes in the schedule of scientific research projects, some of them had to be shifted to the first half of 1959, such as, for example, "Untapped Reserves for Higher Labor Productivity in the Fish-Canning Industry of the Lithuanian SSR" and "Reducing Production Costs and Increasing Profitableness at Fur Industry Enterprises in the Lithuanian SSR."

Which works have been completed by the Institute during the past year? On the problem of "Ways to Increase Labor Productivity and Reduce Production Costs in the Industry of the Lithuanian SSR," a research job was completed on the introduction of internal cost management at enterprises of the knitwear industry of the Lithuanian SSR, mainly at the "Mastis" factory. In 1957 this enterprise became the first in the knitting industry of the republic to convert to cost management. In the elaboration of the problem, use was made of the wealth of experience accumulated in this field at the largest knitwear factories of Moscow, Leningrad and other cities of the country. Thanks to its application at the main production plants, economizing practices have been strengthened and the technico-economic performances of these enterprises have improved.

The above-mentioned work outlines ways of introducing cost management at subsidiary plants, and also ways for its more extensive application in the chief production departments (in individual brigades, shifts and worker sections). It is further intended to put the measures that have been worked out into practice at other large knitting factories as well. Research was also begun last year on the subject of "Ways of Increasing Labor Productivity at Machine-Building Enterprises of the Lithuanian SSR."

Most of the completed scientific works have been done in the sector of agricultural economics. Problems have been worked out in them which are of great importance to the agriculture of the republic. Thus, the monograph "Kolkhoz Electrification in the Lithuanian SSR and Its Role in the Development of Kolkhoz Production" sets forth the current condition of rural electrification in the republic, the effect of the coming extensive application of electric power on farm production for the purpose of reducing costs per unit of produced output. Proposals are made whose execution will help to improve the economic effectiveness of the electrification of kolkhoz production, and means are planned for the elimination of certain defects in rural electrification.

The analysis of concrete data and the direct study of conditions on the kolkhozes has made it possible to determine the effectiveness of electrification at various stages of kolkhoz production. The author has come to the sound conclusion that fuller utilization must be made of new, additional power capacities, that it is more advisable to combine various types of sources of mechanical power, and so forth. The electric-powered farm machinery pool should be more varied in designations, types and capacities. The above-mentioned work also discusses problems involved in the development of the communal farming sector, and in the growth of the material well-being and of the cultural and technological standards of kolkhozniks on electrified kolkhozes. Some of the data in this work have been used in the drafting of long-range plans for the further development of rural electrification in the republic.

The research work on "Problems of the Organization of Field Work Operations in the Lithuanian SSR" examines the problem of how best to utilize manpower and improve operational organization in field work, and the question of the advisability of organizing multi-purpose brigades on kolkhozes. Recommendations are made on questions of job

standardization and the setting of output norms on the basis of generalizations from the experience of kolkhozes. The work contains proposals bearing on labor remuneration and analyzes the possibilities for the introduction of guaranteed wages on all kolkhozes in the republic. Based on this work, a separate brochure was prepared and published on "Recommendations on Questions of Job Standardization and Remuneration for the Kolkhozes of the Birzhaisk Raion," which is also being used by kolkhozes in other raions of the republic.

The investigation of "Costs of Production and the Prime Cost of Farm Produce on Kolkhozes of the Lithuanian SSR" outlines theoretical questions on the determination of the prime cost of farm production and draws up the procedure for its computation on kolkhozes in the republic. In addition, it analyzes the level of cost prices and profitableness of individual branches of agriculture in the Lithuanian SSR as compared with analogous indices for kolkhozes in other Baltic Soviet republics and in the Belorussian SSR. While analyzing cost prices on farm produce by separate elements, this investigation brings out the influence on their level of natural and economic conditions. The author offers economically sound ways in which agricultural artels of the republic may, under varying natural and economic conditions, reduce the cost price of their farm produce.

Certain problems of sovkhov production are subjected to analysis in the completed work "Ways of Reducing Prime Production Costs in Pig Raising on Sovkhozes in the Lithuanian SSR," written from factual materials obtained from all the sovkhozes of the republic. The task of reducing prime production costs in pig raising is regarded here in two aspects: firstly, an attempt is made to determine the influence of increased pig-farming output on the reduction of pork cost prices and at the same time to investigate problems posed by the intensification of pork-farming; secondly, ways are defined of reducing labor and money inputs in pork production. Analyzing the possibility of increasing pork-farming output on sovkhozes, the author points out the necessity to intensify the utilization of sows and gilts for farrowing in the practice of sovkhov operation. It is precisely here where the economic effectiveness of the utilization of one group of sows or another is determined.

The work accords special attention to the determination of ways to reduce expenditures in produce output. It is established through an analysis of the constituent parts of the production cost of pig-raising output that the most expensive item on the input list is feed. An analysis of the labor productivity level on kolkhozes of the republic and a comparison of the basic labor productivity indices for the sovkhozes of the Lithuanian SSR with corresponding data for sovkhozes in the Latvian, Estonian and Belorussian republics have pointed up the existence of unutilized reserves and have made it possible to determine the influence of several factors on the level of labor productivity. While studying pig-raising problems (on each individual sovkhov) the work also examined the extent to which labor productivity is increased by individual factors such as mechanization, labor organization and remuneration, and the application of the principle of material incentives.

Many investigation projects were continued last year on the problem of "The Geographic Distribution of Socialist Production and Economic Zoning in the Lithuanian SSR"; these projects were related to the organization of the construction of production-management centers and of kolkhoz settlements in the republic and to the development of the industrial centers of the Lithuanian SSR; work was also done on the subject of "The Specialization and Cooperativization of Industry in the Lithuanian SSR," in the course of

h a detailed procedure for the study of these matters drawn up, a schedule of work was prepared for each up engaged in the study of an individual branch, and all necessary statistical material was gathered and proc-

vestigatory work conducted on the problem of "The ory of the National Economy and Economic Thought of uania" touched for the most part on the bourgeois peri- A work was completed on the dissemination and devel- ment of Marxist-Leninist economic thought in Lithuania ng the period from 1918 to 1940. It relates from his- c documents the heroic struggle of the Communist Party ithuania, sets forth and analyzes its economic program, shows how Marxist-Leninist economic thought was disin- uated under the bourgeois regime.

a addition to works on these problems, the Institute pre- ed for publication a Russian-Lithuanian economic dic- ary. The bulk of the materials on all economic terms ch are to be included in the dictionary was ready by the of 1958. During 1959 it will be finally edited. uring 1958 considerable attention was awarded to the ctical application of completed works, and especially to mplementation of the proposals contained in the re- ch work on "Reserves for Increased Labor Productivity nterprises of the Metal-Processing Industry of the auanian SSR." This work gave recommendations for the rovement of labor organization, for raising production ciency, for the introduction of new techniques and tech- ological equipment, and other similar measures. Their lementation will help to increase labor productivity and siderably to expand the volume of production output at al-processing enterprises of the republic.

he publication of the transactions of the Institute is also istributing to the implementation of several scientific mmendations and to the transmission of successful ex- periences in the national economic field. Thus, volume V he transactions of the Institute, published last year on oblems of Rural Mechanization and Electrification in Lithuanian SSR," describes the actual process of elec- cation of the kolkhozes of the republic, examines the t played by electrification in the development of agricul- l production and points out its economic effectiveness. book is given over in large part to the efficient utiliza- of modern equipment in agriculture. In particular, n questions are taken up as the acquisition of a well- nded machine-tractor pool, the combination of the opera- s of tractor brigades with the work of field-worker ades, increasing labor productivity and improving the ization of the machine-tractor pool, and also questions ted to the rational utilization of machine-operator staffs ncreasing their material incentives.

he sixth volume of the transactions of the Institute, "In- asing the Profit Ratio of Industrial Enterprises," deals a certain problems of the economics of enterprises in onfectionery, leather footwear and knitting industries. articles give special attention to the reduction of prime duction costs, to increasing labor productivity, and also ne improvement of production and labor organization at enterprises mentioned. In addition, they touch on spe- ization in the confectionery industry, on measures plan- to improve the operation of leather footwear enter- es and also on the introduction of intra-plant cost man- ment.

he published work of Yu. Prichinauskas on "Increasing erial Incentives on Kolkhozes" studies the development olkhoz production in the republic over recent years. In he author has shown the results of economic measures through by the state in the realm of farm production,

and particularly the manner in which the perfecting of the procurement and pricing system has contributed to the growth of agricultural production and labor productivity. He also deals with problems involved in the correct regu- lation of interrelations between the communal farming sec- tor and personal, subsidiary kolkhoznik farming.

The monograph by K. Meshkauskas on "The Salient Fea- tures of Industrialization in the Lithuanian SSR" outlines the process of industrial development in the Lithuanian provinces of Tsarist Russia up to World War I, describes the condition and details of the development of the more important branches of industry in bourgeois Lithuania, and points up the part played by international monopolistic cap- ital in determining the trends of industrial development in bourgeois Lithuania (the lagging development of group "A" branches, which up to 1939 had remained at the 1913 level). Starting from the basic principles of distribution of pro- ductive forces and inter-regional division of social labor, the author projected and substantiated the paths of the fu- ture industrialization of the republic in organic relation with the industry of the USSR as a whole and of its Western districts in particular. The work traces inter-regional economic ties and problems of industrial specialization and cooperativization.

"The Geographical Distribution and Specialization of Farm Production in the Lithuanian SSR," a work prepared by a team of writers, delineates the condition of farm pro- duction in the Lithuanian SSR, and also offers proposals on the application of a more rational farm management sys- tem in the republic. The natural and economic conditions present in the Lithuanian republic and the experience of Lithuanian farm workers offer everything that is needed for an intensive development of high-output livestock farming — the main sector of local rural production. Livestock farming should not only provide for the meat and dairy product needs of the republic's population, but also as large a volume of products as possible for the industrial centers of the USSR. The development of livestock farming must be rationally linked to the expansion of flax growing and to increasing the production of sugar beets, potatoes, vegetables, fruits, berries, not only to satisfy fully the re- quirements of the urban population of the republic for fresh vegetables and fruits, but also to obtain raw materials for various branches of industry.

This work goes into the question of the advisability of de- veloping this or that branch of livestock farming and of their rational combination, the crops to be sown, and the most effective methods for conducting and organizing farm operations.

Last year members of the Institute staff assisted Soviet and Party institutions in the republic (economic research- ing, scientific consultations, etc.). In joint effort with other scientific establishments, the Economics Institute of the AS of the Lithuanian SSR participated in the working out of chief trends in the long-range national economic plan of the republic. Proposals were presented on the chief avenues of development and on the composition of the more impor- tant branches of the national economy.

Several Institute people are members of the technical- economic department of the economic council and of its in- dividual sections: machine-building, power supply, the food industry, light industry, and others. Certain members of the economic council were in turn put on the staff of the learned council of the Institute. All important measures for the development and geographical location of productive forces in the republic, for sectional economics, labor or- ganization, etc., are discussed by the Institute conjointly with the economic council. The economic council, Gosplan

and the Institute began publication in 1958 of an economic journal *Lyaudiyes Ukis* (National Economy), which elucidates the most current theoretical and applied economic questions in the republic.

Having made a preliminary analysis of the economic activities of individual enterprises and kolkhozes, members of the Institute staff conducted several local conferences in the field, at which proposals were discussed which were made on the basis of that analysis. Several conferences were held on how to strengthen the kolkhoz economic position.

During the past year, improvement was made in the coordination of scientific activities both with the scientific research establishments and VUZes [institutions of higher learning, akin to our colleges — Transl.] and with the Institute of Economics of the AS USSR and with the economics institutes of union republics. For example, in addition to jointly held conferences and sessions on industrial and agricultural economics, agreement was reached with the Institutes of Economics of the AS of the Latvian SSR and of the AS of the Estonian SSR to conduct joint research on problems of the specialization and cooperativization of the metal-processing and machine-building industries of the Baltic republics. The electro-technical and radio-technical industries here will undergo large long-range development, as also the instrument-making industry, for which reason it was decided to study the specialization and cooperativization of these sectors first of all. Apart from this, it is intended to look into the specialization and cooperativization of the farm-machinery industry, which is of great importance to the economy of the Baltic littoral. Later on research will be done in such sectors as general machine-building, machine-tool manufacturing, the transport machinery industry and the production of metal consumer goods.

In connection with the approaching twentieth anniversary of the socialist development of the Baltic republics, all three economics institutes will jointly prepare a jubilee edition *Twenty Years of the National Economy of the Soviet Baltic*.

The activities plan of the Economics Institute of the AS of the Lithuanian SSR for 1959 embraces the same problems that were covered last year. At the suggestion of the economic council and of the Council of Ministers of the Lithuanian SSR, several current subjects were added supplementarily to the plan, mainly on the economics of the fishery and leather footwear industries. Research has also begun on the economic effectiveness of capital investments in the farming of the republic, work is being done on the economic evaluation and utilization of land, the development of livestock farming, and the history of the national economy of the Lithuanian SSR.

A. Zargarov:

At the Economics Institute of the Academy of Sciences of the Azerbaidzhanian SSR

Last year a republic economics institute was organized on the basis of the economics department of the Academy of Sciences of the Azerbaidzhanian SSR. The chief problem on which most of the staff of the new scientific research institution worked was "The Condition and Ways for the Development of the Productive Forces of the Republic."

It includes several subjects of current importance, particularly the subject of "The Condition and Ways of Increasing Labor Productivity in the Petroleum Industry of the Azerbaidzhanian SSR," which is of great importance to the economy of the republic. In the course of the investigation methods were studied for the determination of animal and material labor depending on the depth of wells, the extent to which new methods and equipment have contributed to reducing social expenditures in oil extraction and in drilling, the rational grading and processing of high-quality oil of Azerbaidzhan and its effect on technical and economic performance records, and also several other important practical questions.

A work on another subject, "The Basic Funds of Marine Operations and Ways to Improve their Utilization," was devoted to the investigation of specific details in design of offshore well structures, of the effect of technical and technological progress on the dynamics of basic funds, etc.

The completed monograph on "Labor Productivity in the Textile Industry of the Azerbaidzhanian SSR and Ways to Increase It" offers suggestions on how to improve the methods of calculating labor productivity and bares untapped reserves for its further rise at the textile enterprises of the republic. These suggestions, and also the conclusions arrived at in the monograph, have been extensively discussed by the members of a technical-economic conference conducted at the Lenin Textile Combine together with members of the Azerbaidzhanian economic council staff.

The department of agricultural economics has studied ways of further developing the kolkhozes of the republic. As a result, a work was completed on the subject "Basic Questions of the Development of the Economic Structure of the Cotton-Growing Kolkhozes of the Azerbaidzhanian SSR," consisting of two independent sections: "The Production Cost of Cotton and of Grains and Ways to Reduce It on Cotton-Growing Kolkhozes" and "Labor Productivity and How to Increase it on Cotton-Growing Kolkhozes." The staff of the department also worked on how to improve the utilization of kolkhoz land resources, how to develop kolkhoz production as a result of the reorganization of the machine-tractor stations, and on the discovery of untapped reserves in the machine-tractor pools.

The learned members of the department on geographical distribution of socialist production last year completed an investigation on the subject of "The Geographic Distribution and Long-Range Development of Agriculture in the Nukha-Zakatal'sk zone of the Azerbaidzhanian SSR." The recommendations that were worked out as a result were extensively discussed at a scientific conference in the city of Nukha, which was attended by Party and council workers, kolkhoz chairmen and agricultural specialists. The conference approved a plan proposed by the Institute containing measures to determine the avenues and long-range development of the agriculture of the Nukha-Zakatal'sk zone. These proposals have been submitted to the republic's Gosplan for practical utilization during the current seven-year period.

Another work completed by the department of the geographical distribution of socialist production, "The Geographic Distribution and Specialization of Agricultural Sectors in the Nakhichevan ASSR," also contains several useful recommendations which have been approved by the Council of Ministers of the republic and also by the collegium of the Ministry of Agriculture of the Nakhichevan ASSR.

The Department of Political Economy and History of Economic Thought has conducted investigations on the

following subjects: "Economic Thought in Azerbaidzhan during the First Half of the 19th Century," "An Outline of History of Economic Thought in Azerbaidzhan from the Second Half of the 19th Century to the Accession of Soviet Power," "The Collapse of the Colonial System of Imperialism (on the Example of the National-Liberation Struggle of Peoples of the Near and Middle East)," and "The System of Prices and Price-Formation in the Petroleum Industry of the USSR." Investigations along these subjects are also being conducted this year.

The Department of National Economic History is researching the following three subjects: "The Industry of Azerbaidzhan During the 19th Century," "The History of the Development of Cotton Farming in Azerbaidzhan during the Soviet Period" and "The Development of the Fishery Industry in Azerbaidzhan During the Years of Soviet Rule." Apart from works published last year on the economics of the exploitation of offshore oil deposits, on basic funds of the productive capacities of enterprises of the republic's textile industry and others, the Institute has prepared for publication the following collective works: "The Economics of Secondary Methods of Oil Extraction in Azerbaidzhan," "The Geographical Location and Specialization of Agriculture in the Nukha-Zakatal'sk Zone," "Problems of the Economics of Cotton-Growing Kolkhozes in the Azerbaidzhanian SSR." Besides, several reports have been submitted to governmental agencies on individual questions of the development of the national economy of the republic. A regional conference was held by the Institute in Baku on the means of coordinating scientific investigations and devoted to the study of the condition and prospects for the development of the economic position of the kolkhozes in mountain districts of the country. The work of the conference was joined in by scholar-economists from Azerbaidzhan, Armenia, Georgia, Tadzhikistan, Dagestan, Bashkiria, staff members of scientific agricultural research establishments, representatives of VUZes, and practical kolkhoz production technicians. Several reports were heard and discussed at the conference. For the purpose of improving the economic position of mountain kolkhozes, the conference recommended an intensification of the struggle against soil erosion and saline sources, and a restoration of their fruitfulness; to step up the work of construction, of the testing and introduction in production of special farm machinery; a revision of the sizes of land allotments to bring them into line with the manpower and material resources of each kolkhoz; the subordination in mountain districts of grain growing to the aim of securing a firm feed base for livestock, and, in connection with this, posing to competent authorities of the question of the exemption of local kolkhozes from the obligation to sell grain to the state.

For the fuller utilization of the rich power reserves of mountain rivers, the conference deemed it advisable to organize one electric-powered farm in each republic, which could be a laboratory for the study of economic and scientific-technical questions of local kolkhoz electrification. In order to attain a higher degree of utilization of manpower and feed resources on mountain kolkhozes and large-scale capital investments for kolkhoz development, it was also deemed advisable to study the problem of the association of one or several mountain kolkhozes with piedmont or lowland kolkhozes.

In its daily routine operations, the Institute maintains close ties with a series of republic agencies; the Ministries of Agriculture and of the Petroleum Industry, Gosplan, the economic council and others. The Institute's plans for scientific research are concerted with these establishments, guest economic conferences are arranged

jointly with them, bases are set up on kolkhozes for the study and putting into practice of the results of scientific investigations in the field of agriculture.

Twice a month members of the Economics Institute staff and workers of the republic's Gosplan jointly discuss the most interesting and controversial questions of economic science and of the practice of national economic planning in the republic.

In accordance with the planning figures for the development of the national economy of the USSR during the seven-year period, the Institute's plan of scientific research provides for extended research on the more urgent problems. Thus, in connection with the problem of "Social Labor Productivity and Ways to Increase It in the Industry and Agriculture of the Azerbaidzhanian SSR," it is intended to continue investigations aimed at the discovery of untapped reserves for raising labor productivity in the leading branches of industry and agriculture of the republic. In the area of industrial economics, the Institute will, starting in the second half of 1959, undertake an investigation on the subject of "Geologico-Technical and Economic Indices of the Effectiveness of Exploratory and Prospecting Work, Methods for Their Determination and How to Apply Them Correctly." The Department of Industrial Economics will also study the effectiveness of capital investments and of new technology in the petroleum industry of Azerbaidzhan.

Investigations on the above-mentioned problem in the area of agricultural economics are to be conducted along two lines: a procedure will be worked out for calculating labor productivity, and a study will also be made of the condition of and ways to increase labor productivity in the more important branches of the republic's agriculture (cotton-growing, livestock farming, horticulture, vineyards, etc.).

On the problem of "The Geographic Distribution of Socialist Production and the Economic Zoning of the USSR," the Institute has already set in motion a study of the subject "The Geographical Distribution and Long-Range Development of the Food Industry of the Republic." The geographical distribution of branches of agriculture, in connection with the development of the light and food industries, will be studied at the same time.

Monographs are to be done on the problems "The History of the National Economy of Azerbaidzhan" and "The Development of Economic Thought in Azerbaidzhan"; these monographs will be devoted to the economic progress of the republic, the history of economic thought in Azerbaidzhan both prior to the revolution and during the years of Soviet rule. The section on the political economy of capitalism will include an investigation into the problem of "The Collapse of the Colonial System of Capitalism," part of the aim of which is to uncover fundamental tendencies in the modern economic and political development of backward countries.

In 1959 the Institute, jointly with the Ministry of the Petroleum Industry of the republic and the State Scientific-Technological Committee of the Council of Ministers of the republic, will conduct an all-union conference in Baku on the effectiveness of capital investments and of the introduction of new equipment in the petroleum industry.

The planning figures ratified by the XXist Congress of the CPSU for the development of the national economy of the Azerbaidzhanian republic contemplate the further growth of such sectors as the petroleum, gas and chemical industry, heavy and light metallurgy and several others. In this connection, the organization of several new departments is planned at the Institute in the near future for the carrying out of investigations and research work on the economics of leading branches of the national economy of the republic.

INTERNATIONAL LEARNED TIES AMONG ECONOMISTS

Soviet Economists in People's China

In accordance with an agreement between the Academy of Sciences of the USSR and the Academy of Sciences of the Chinese People's Republic for scientific collaboration, a group of members of the staff of the Institute of Economics of the AS USSR sojourned in the CPR on a scientific mission between October 29 and December 30, 1958.

The task of this group was: to examine jointly with the Institute of Economics of the AS CPR the plan for a book in commemoration of the 10th anniversary of the CPR which will be prepared by Soviet economists for October, 1959 release; to discuss several questions in connection with the publication of the collective works The Socialist Industrialization of the People's Democracies and The Cooperativization of Peasant Farm Production in the People's Democracies, individual chapters of which are to be written by Chinese economists; to acquaint themselves with the organization of scientific research work at the Institute of Economics of the AS CPR and with certain problems of the development of the economic structure of the Chinese People's Republic.

The Soviet economists spent one month working in Peking. They also stayed in the cities of Chengchow, Chengtu, Chunghsien, Wukang, Hwangchow, and some small villages, visited several ministries and administrations, departments of industry, agriculture, water supply, trade and other provincial agencies. In all cities they were given the opportunity to acquaint themselves with the operations of various industrial enterprises and farm communes, to visit industrial and agricultural exhibitions, schools and scientific-research establishments, and to engage in joint talks on individual problems of the economic development of the CPR.

The Soviet economists were everywhere greeted with pleasure, as the oldest of friends. The friendly and genuinely cordial atmosphere that prevailed contributed to the best possible accomplishment of proposed tasks. Learned collaborators of the Institute of Economics of the AS CPR agreed to write a series of articles for the book that is being prepared for publication by Soviet economists in Moscow.

The Soviet economists acquired a detailed acquaintance with the organization of scientific research work at the Institute of Economics of the AS of the CPR, where more than 150 collaborators work. As a result of the great leap in the development of industrial and agricultural production in 1958, the outstanding place in the schedule of the Institute's scientific research work is occupied by investigations into the economic nature and reasons for this rise. Considerable space in the work of the Institute is given over to criticism of various revisionist and bourgeois theories of the development of the socialist economy.

A special group of scientific collaborators of the Institute of Economics of the AS CPR has for a protracted period of time been engaged in work in the province of Hupeh. While joining in the local production and economic labors, this group is at the same time studying the economic problems of the province and arriving at scientific generalizations.

During their stay in the CPR, the members of the Institute of Economics of the AS USSR gathered a great deal of material on the development of the economy of the CPR; this material will be studied in detail and generalizations will be drawn from it later on. Greatest interest centers about the data on the development of industrial and agricultural production during the years of the first five-year plan and for 1958.

KHAVINA (Continued From Page 81)

rise by 62-65 per cent between 1958 and 1965 and will be almost six times higher than the pre-war 1940 level. Not a single capitalist country can boast of such a rapid rate of national income growth. Every necessary condition is present in our country to secure the high rate of national income growth set by the seven-year plan for the development of the national economy of the USSR.

AWARD OF THE N. G. CHERNYSHEVSKY PRIZE

The presidium of the Academy of Sciences of the USSR has awarded the N. G. Chernyshevsky prize for 1958 to the team of authors of the work History of Russian Economic

Thought, Vol. I, Part 1 (1955) and Part 2 (1958), published by the Institute of Economics of the Academy of Sciences of the USSR.

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